

# Water Resources Data Colorado Water Year 1996

Volume 2. Colorado River Basin

By R.M. Crowfoot, A.V. Paillet, G.F. Ritz, M.E. Smith,  
R.A. Jenkins, and G.B. O'Neill

Water-Data Report CO-96-2

Prepared in cooperation with the State of Colorado  
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

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U. S. GEOLOGICAL SURVEY

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Lakewood, CO 80225

**CALENDAR FOR WATER YEAR 1996**

**1995**

OCTOBER							NOVEMBER							DECEMBER							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
1	2	3	4	5	6	7				1	2	3	4						1	2	
8	9	10	11	12	13	14	5	6	7	8	9	10	11	3	4	5	6	7	8	9	
15	16	17	18	19	20	21	11	12	13	14	15	16	17	18	10	11	12	13	14	15	16
22	23	24	25	26	27	28	19	20	21	22	23	24	25	17	18	19	20	21	22	23	
29	30	31					26	27	28	29	30			24	25	26	27	28	29	30	
													31								

**1996**

JANUARY							FEBRUARY							MARCH						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6					1	2	3						1	2	
7	8	9	10	11	12	13	4	5	6	7	8	9	10	3	4	5	6	7	8	9
14	15	16	17	18	19	20	11	12	13	14	15	16	17	10	11	12	13	14	15	16
21	22	23	24	25	26	27	18	19	20	21	22	23	24	17	18	19	20	21	22	23
28	29	30	31				25	26	27	28	29			24	25	26	27	28	29	30
													31							
APRIL							MAY							JUNE						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6					1	2	3	4					1		
7	8	9	10	11	12	13	5	6	7	8	9	10	11	2	3	4	5	6	7	8
14	15	16	17	18	19	20	12	13	14	15	16	17	18	9	10	11	12	13	14	15
21	22	23	24	25	26	27	19	20	21	22	23	24	25	16	17	18	19	20	21	22
28	29	30					26	27	28	29	30	31		23	24	25	26	27	28	29
													30							
JULY							AUGUST							SEPTEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6					1	2	3		1	2	3	4	5	6	7
7	8	9	10	11	12	13	4	5	6	7	8	9	10	8	9	10	11	12	13	14
14	15	16	17	18	19	20	11	12	13	14	15	16	17	15	16	17	18	19	20	21
21	22	23	24	25	26	27	18	19	20	21	22	23	24	22	23	24	25	26	27	28
28	29	30	31				25	26	27	28	29	30	31	29	30					

## PREFACE

This volume of the annual hydrologic data report of Colorado is one of a series of annual reports that document hydrologic data gathered from the U. S. Geological Survey's surface- and ground-water data-collection networks in each state, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for Colorado are contained in two volumes:

Volume 1. Missouri River, Arkansas River, and Rio Grande  
basins in Colorado,  
Volume 2. Colorado River basin.

This report is the culmination of a concerted effort by dedicated personnel of the U. S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

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(Letter after station name designates type and frequency of published data. Daily tables: (D) discharge, (C) specific conductance, (S) sediment, (T) temperature, (E) elevation or contents, (O) dissolved oxygen, (P) pH, (R) precipitation.)

Periodic tables: (c) chemical, (b) biological, (e) elevation or contents, (m) microbiological, (s) sediment, (t) temperature.)

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## VOLUME 2: COLORADO RIVER BASIN

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By R.M. Crowfoot, A.V. Paillet, G.F. Ritz, M.E. Smith, R.A. Jenkins, and G.B. O'Neill

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## INTRODUCTION

The Water-Resources Division of the U.S. Geological Survey, in cooperation with State agencies, obtains a large amount of data pertaining to the water resources of Colorado each water year. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the Geological Survey, the data are published annually in the report series entitled "Water Resources Data - Colorado".

This report (Volume 2 of two volumes) includes records on both surface and ground water in the State, west of the Continental Divide. Specifically, it contains: (1) discharge records for 175 surface-water stations, and peak discharge data for 1 partial-record surface-water station and data for 1 low-flow partial-record site; (2) stage and contents for 14 lakes and reservoirs; and (3) surface-water-quality data for 73 surface-water stations, 7 reservoirs, miscellaneous surface-water-quality data for 107 gaged sites, 33 miscellaneous sites; ground-water level records for 2 sites, and meteorological data for 11 sites. Locations of lake and surface-water-gaging stations and surface-water-quality stations are shown in figure 1, locations of crest-stage partial-record stations are shown in figure 2. Five pertinent stations operated by bordering States also are included in this report. The data in this report represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Colorado.

Prior to introduction of this series and for several water years concurrent with it, water-resources data for Colorado were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface-water Supply of the United States," Parts 6B, 7, 8, and 9. For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States." Data on ground-water levels for the 1935 through 1955 water years were published annually under the title "Water Levels and Artesian Pressures in Observation Wells in the United States." For the 1956 through 1974 water years the data were published in four 5-year reports under the title "Ground-Water Levels in the United States." Water-supply papers may be purchased from the, U.S. Geological Survey, Books and Open-File Reports, Federal Center, Building 810, Box 25425, Denver, CO 80225.

For water years 1961 through 1970, streamflow data were released by the Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1970 were similarly released either in separate reports or in conjunction with streamflow records.

Publications similar to this report are published annually by the Geological Survey for all States. These official Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report CO-96-2." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale, in paper copy or in micro-fiche, by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the District office at the address given on the back of the title page or by telephone (303) 236-4882.

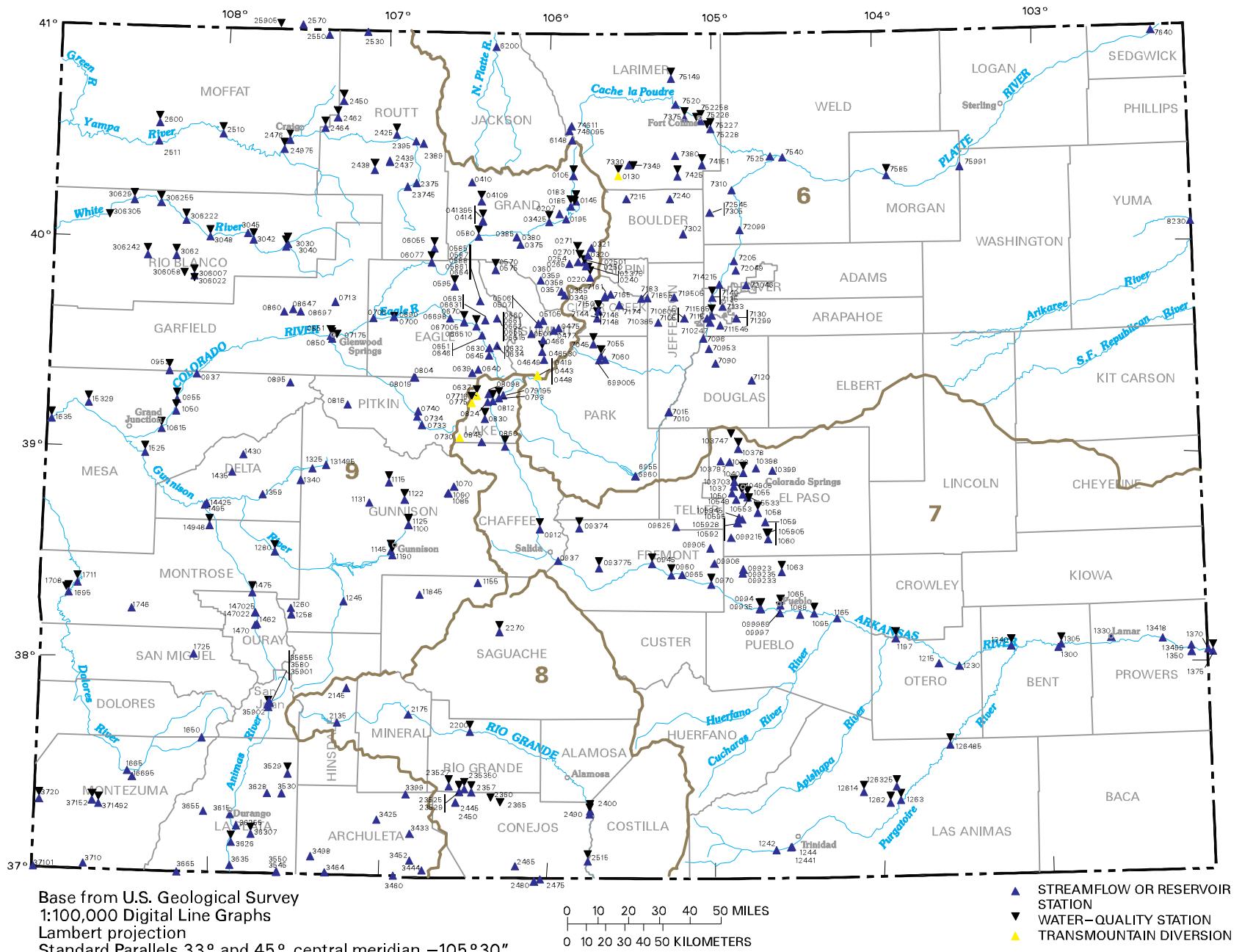


Figure 1.--Map showing locations of lakes and surface-water stations and surface-water-quality stations in Colorado.

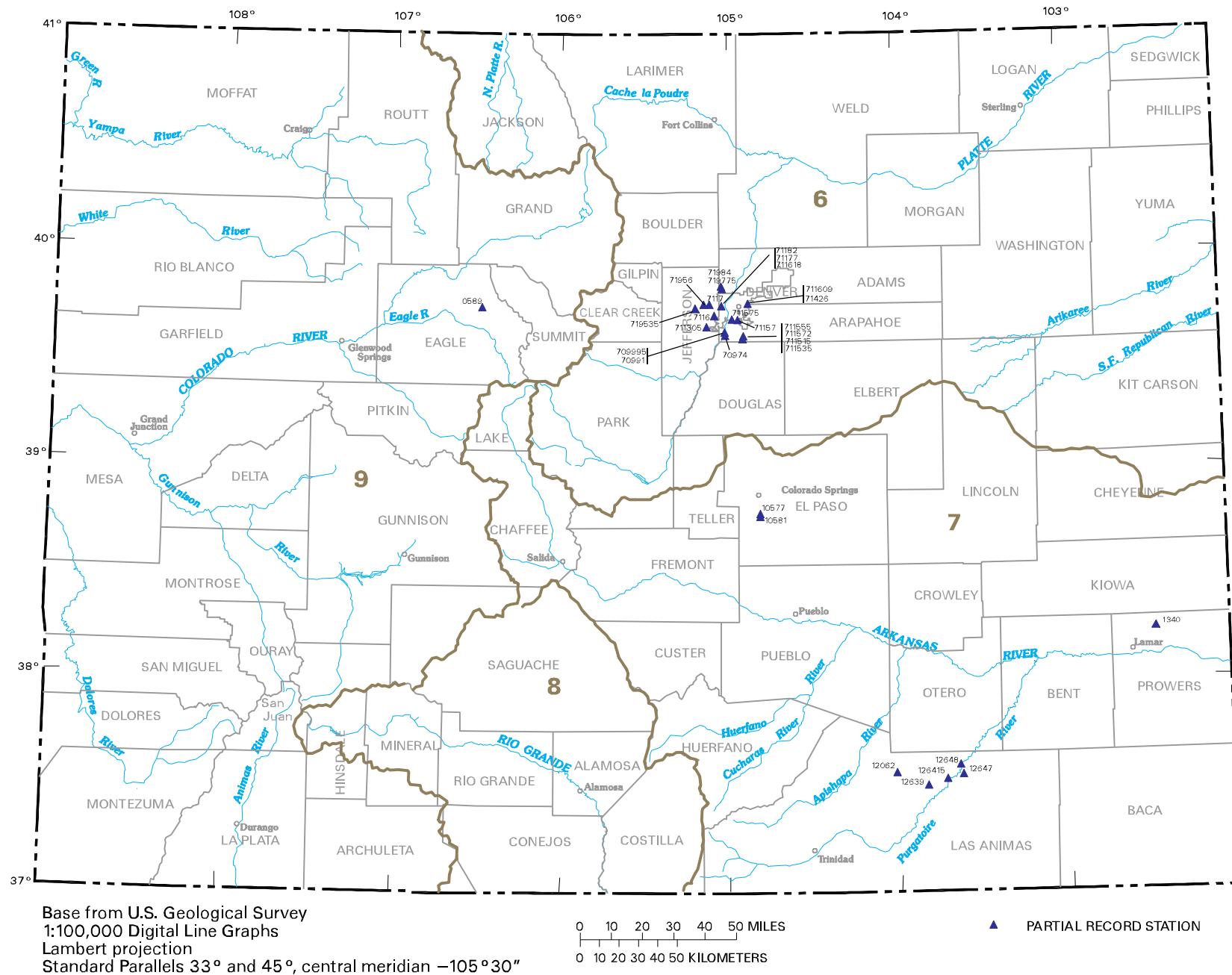


Figure 2.--Map showing locations of crest-stage partial record stations in Colorado.

## COOPERATION

The U.S. Geological Survey and organizations of the State of Colorado have had cooperative agreements for the systematic collection of surface-water records since 1895 and for water-quality records since 1941. Organizations that assisted in collecting data for this report through cooperative agreement with the Survey are:

Arapahoe County, Water and Wastewater Authority.  
Arkansas River Compact Administration.  
Centennial Water and Sanitation District.  
Cherokee Metropolitan District.  
City and County of Denver, Board of Water Commissioners.  
City of Aurora.  
City of Black Hawk.  
City of Boulder.  
City of Colorado Springs.  
City of Englewood.  
City of Fort Collins.  
City of Glendale.  
City of Greenwood Village.  
City of Gunnison.  
City of Lakewood.  
City of Longmont.  
City of Loveland.  
City of Pueblo.  
Colorado Department of Public Health and Environment.  
Colorado Department of Transportation.  
Colorado Division of Parks and Outdoor Recreation.  
Colorado Division of Water Resources.  
Colorado Division of Wildlife.  
Colorado River Water Conservation District.  
Colorado Springs Department of Public Utilities.  
Crested Butte South Metropolitan District.  
Delta County Board of County Commissioners.  
Eagle County Board of Commissioners.  
Eagle River Water and Sanitation District.  
East Grand County Water-Quality Board.  
Evergreen Metropolitan District.  
Fountain Valley Authority.  
Garfield County.  
Gunnison County  
La Plata County.  
Lower Fountain Water-Quality Management Association.  
Meeker Sanitation District  
Metro Wastewater Reclamation District.  
Moffat County.  
Mount Crested Butte Water and Sanitation District.  
Northern Colorado Water Conservancy District.  
Northwest Colorado Council of Governments.  
Pueblo Board of Water Works.  
Pueblo West Metro Water District.  
Rio Blanco County Board of County Commissioners.  
Rio Blanco Water Conservancy District.  
Rio Grande Water Conservation District.  
Southeastern Colorado Water Conservancy District.  
Southern Ute Indian Tribe.  
Southwestern Colorado Water Conservation District.  
St. Charles Mesa Water District.  
Teller - Park Soil Conservation District.  
Town of Breckenridge.  
Town of Crested Butte.  
Town of Meeker.  
Town of Rangely.  
Trinchera Water Conservancy District.  
Upper Arkansas River Water Conservancy District.  
Upper Eagle Regional Water Authority.  
Upper Gunnison River Water Conservancy District.  
Upper Yampa Water Conservancy District.  
Urban Drainage and Flood Control District.  
Yellowjacket Water Conservancy District.

Financial assistance was also provided by the U.S. Army, Corps of Engineers; U.S. Army; Bureau of Land Management, Bureau of Reclamation, National Park Service, U.S. Fish and Wildlife Service, and U.S. Environmental Protection Agency. Organizations that supplied data are acknowledged in station descriptions.

**OVERVIEW OF HYDROLOGIC CONDITIONS**  
 [West of the Continental Divide]

Prepared by M.E. Smith and G.F. Ritz

**Precipitation**

Precipitation data for water year 1996 were obtained from published reports of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Climatic Data Center, for the National Weather Service division in Colorado that is west of the Continental Divide (table 1). Precipitation and departures-from-normal precipitation (1961-90) are listed for the first 6 months (October-March) of the water year when precipitation is predominately snow and for the remaining 6 months (April-September) when precipitation is predominately rain. Also listed are the precipitation and departure-from-normal precipitation for the entire water year.

During October-March, precipitation was 11 percent less than normal for the Colorado Drainage Basin. During April-September, precipitation was 14 percent less than normal for the basin.

Graphs of monthly precipitation for the water year and for normal monthly precipitation at selected weather stations are shown in figure 3. Monthly precipitation data for water year 1996 were supplemented with ancillary information obtained from the Colorado State University, Department of Atmospheric Science, Colorado Climate Center, in Fort Collins.

**Table 1. Precipitation during water year 1996 and departures-from-normal precipitation (1961-90), in inches**

National Weather Service division	October-March		April-September		Water year 1996	
	Precipitation	Departure from normal	Precipitation	Departure from normal	Precipitation	Departure from normal
Colorado Drainage Basin	6.96	-0.84	7.15	-1.2	14.11	-2.04

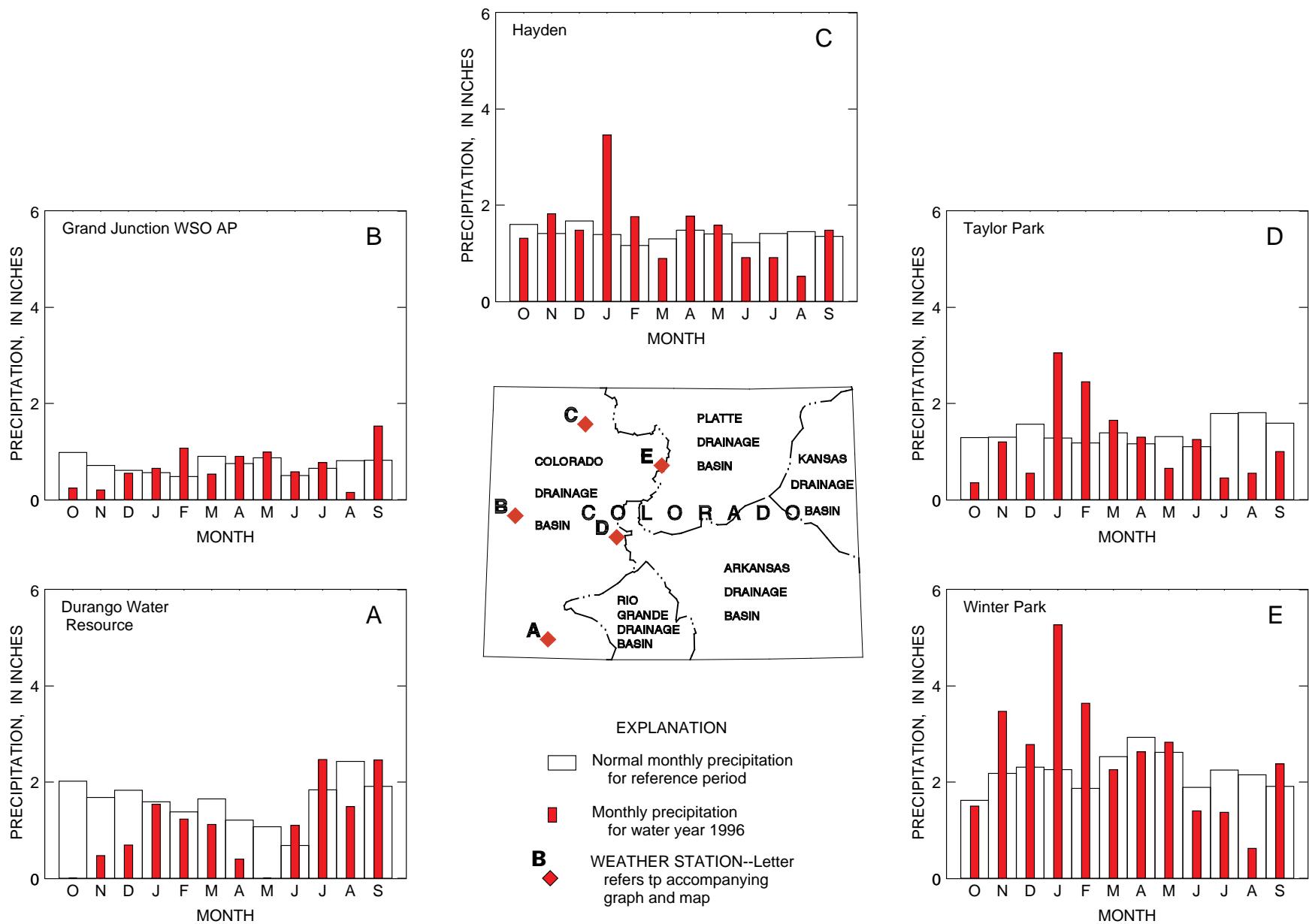
**Streamflow**

Monthly mean discharges during water year 1996 at selected streamflow-gaging stations are compared to long-term (reference period through previous water year) mean monthly discharges in figure 4. Individual graphs show the varied streamflow west of the Continental Divide during the water year. The graphs indicate that monthly mean discharges during the water year had general trends similar to the long-term mean monthly discharges. However, the highest water year 1996 monthly mean discharge at six gaging stations occurred in May, while the highest mean monthly discharge at these sites occurred in June. Streamflows during the water year were not unusually higher or lower than long-term mean streamflows, and annual mean discharges for 1996 ranged from 34 percent less than the long-term mean (gaging station 09361500, Animas River at Durango) to 39 percent greater than the long-term mean (gaging station 09251000, Yampa River near Maybell).

For water year 1996, the graphs indicate that the highest monthly mean discharges occurred in May at gaging stations 09114500, Gunnison River near Gunnison (fig. 4, site B); 09163500, Colorado River near Colorado-Utah State line (fig. 4, site C); 09172500, San Miguel River near Placerville (fig. 4, site D); 09251000, Yampa River near Maybell (fig. 4, site E); 09304500, White River near Meeker (fig. 4, site F); and 09361500, Animas River at Durango (fig. 4, site G). Long-term trends at these sites (except gaging station 09251000, Yampa River near Maybell) indicate that the highest mean monthly discharges normally occur in June. The highest 1996 monthly mean discharge at gaging station 09070000, Eagle River below Gypsum (fig. 4, site A), did occur in June, which is consistent with the long-term trend at that site. Variations of spring 1996 monthly mean discharges from the long-term mean monthly discharges are attributed to variable snowpack and temperature conditions during the period of snowmelt runoff.

For May and June 1996, the two-month mean discharge exceeded the long-term, mean two-month discharge by 49 percent at gaging station 09070000, Eagle River below Gypsum; by 36 percent at gaging station 09114500, Gunnison River near Gunnison; by 14 percent at gaging station 09163500, Colorado River near Colorado-Utah State line; by 36 percent at gaging station 09251000, Yampa River near Maybell; and by 11 percent at gaging station 09304500, White River near Meeker. The long-term, mean two-month discharge exceeded the May and June 1996 mean discharge by 19 percent at gaging station 09172500, San Miguel River near Placerville, and by 30 percent at gaging station 09361500, Animas River at Durango.

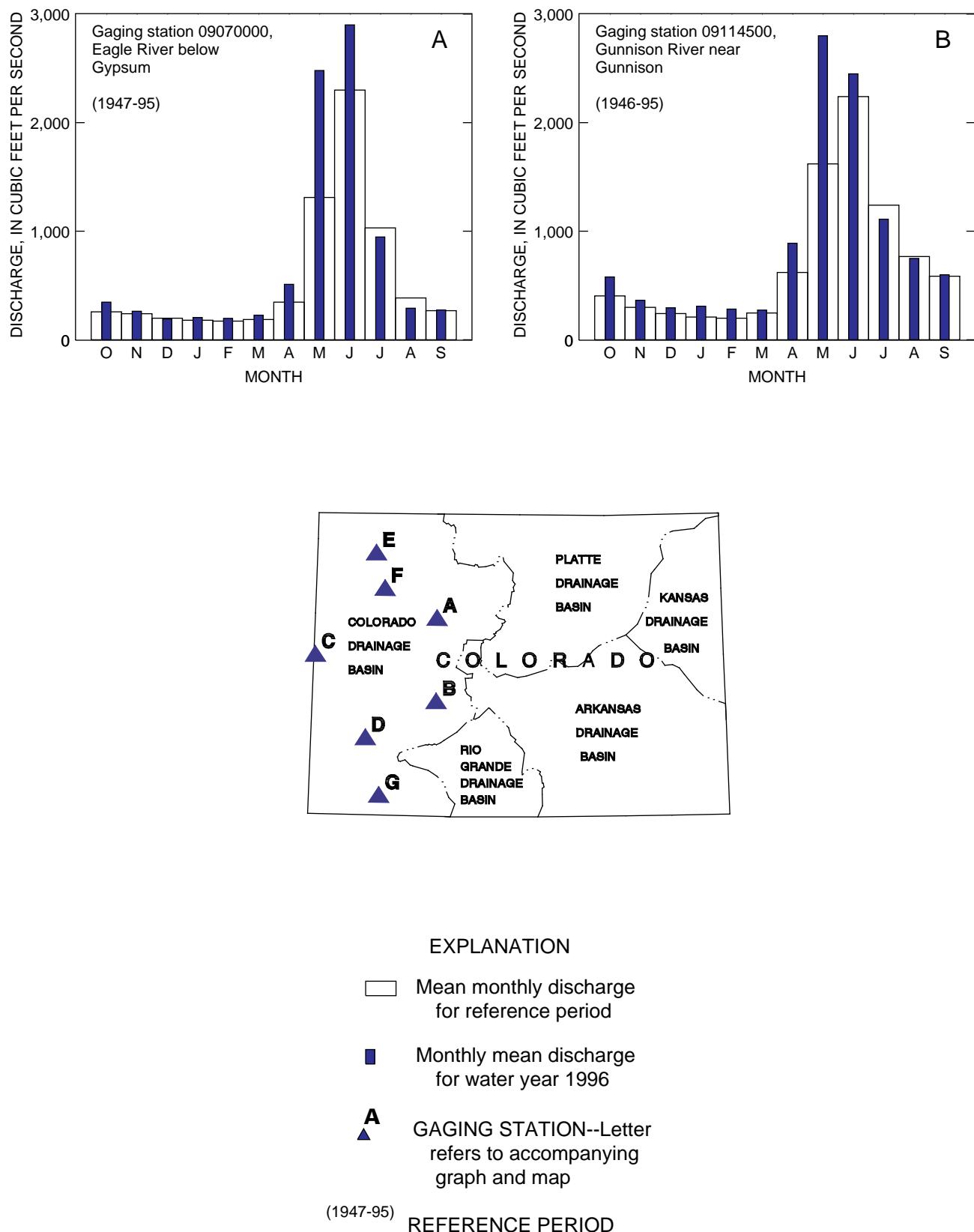
Peak discharges during water year 1996 and for the period of record (through previous water year) for selected gaging stations are listed in table 2. The water year 1996 peak discharge at gaging station 09034250, Colorado River at Windy Gap near Granby, was the second highest for the period of record. The water year 1996 peak discharges at gaging stations 09070500, Colorado River near Dotsero, and 09251000, Yampa River near Maybell, were greater than the 75th percentile. The water year 1996 peak discharge at gaging station 09171100, Dolores River near Bedrock, was the lowest for the period of record. The water year 1996 peak discharge at gaging station 09346400, San Juan River near Carracas, was the 5th lowest for the period of record. The water year 1996 peak discharges at gaging stations 09149500, Uncompaghre River at Delta, and 09152500, Gunnison River near Grand Junction, were less than the 25th percentile. Water year 1996 peak discharges at the other gaging stations listed in table 2 were within the middle 50 percent of the long-term discharge distribution.



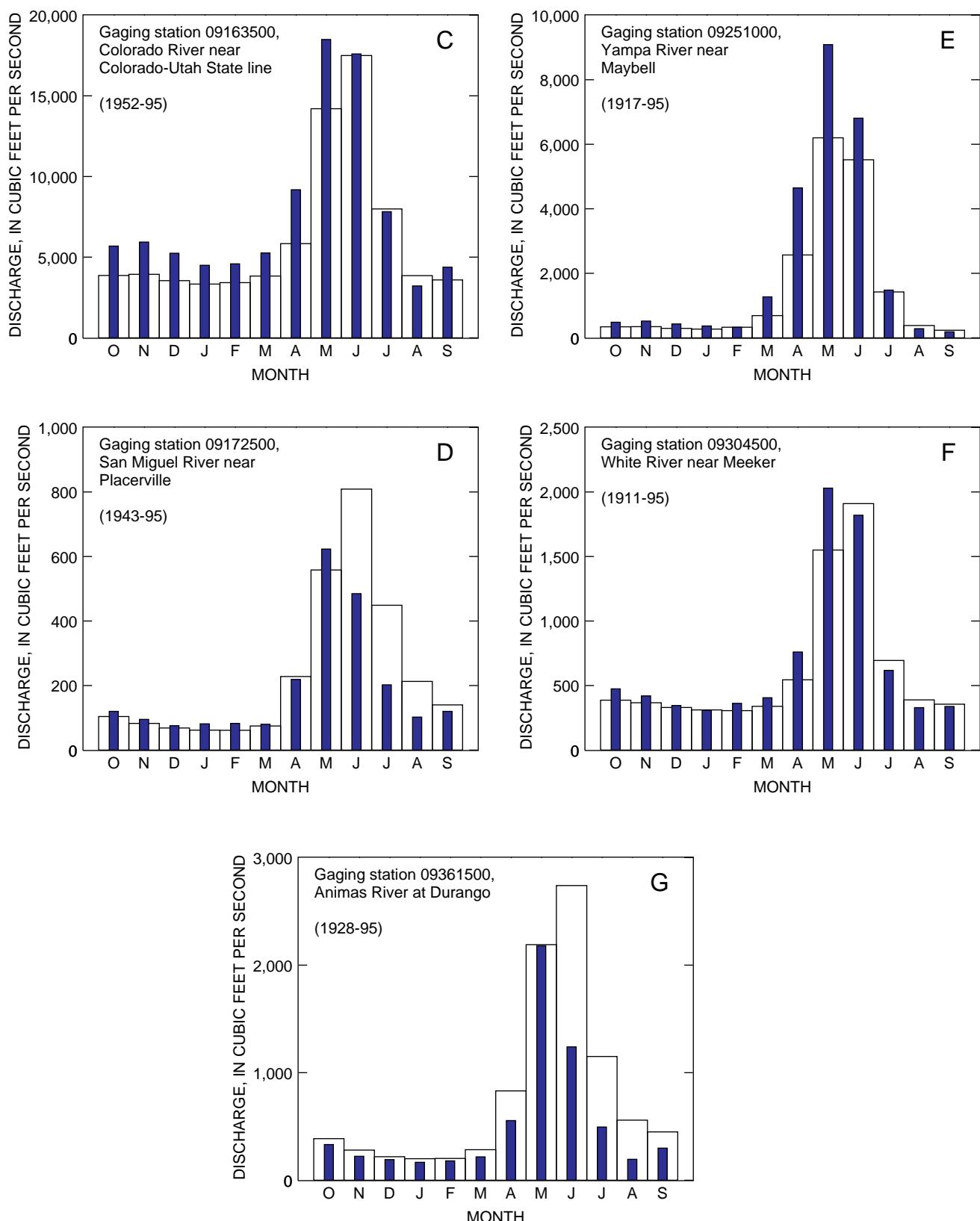
**Figure 3.**--Comparison of monthly precipitation for water year 1996 to normal monthly precipitation for the reference period 1961–90.

**Table 2. Peak discharges for water year 1996 and for the period of record at selected gaging stations**[mi<sup>2</sup>, square miles; ft<sup>3</sup>/s, cubic feet per second; WY, water year]

Gaging-station identification		Drainage area (mi <sup>2</sup> )	Period of record (water years)	Water year 1996		Period of record		Remarks on WY 1996 peak discharge
Station number	Station name			Date	Peak discharge (ft <sup>3</sup> /s)	Date	Peak discharge (ft <sup>3</sup> /s)	
09034250	Colorado River at Windy Gap near Granby	789	1982-95	6/23	4,650	5/25/84	5,260	Greater than 75th percentile (2d highest)
09070000	Eagle River below Gypsum	945	1947-95	5/20	4,620	5/25/84	7,020	Less than 75th percentile
09070500	Colorado River near Dotsero	4,394	1941-95	5/20	13,800	5/25/84	22,200	Greater than 75th percentile
09085000	Roaring Fork River at Glenwood Springs	1,451	1906-09, 1911-95	6/22	6,630	7/1/57	19,000	Greater than 25th percentile
09085100	Colorado River below Glenwood Springs	6,013	1967-95	5/20	18,200	5/25/84	31,500	Less than 75th percentile
09095500	Colorado River near Cameo	8,050	1934-95	5/20	21,500	5/26/84	39,300	Greater than median
09114500	Gunnison River near Gunnison	1,012	1911-27, 1945-95	5/18	4,990	6/13/18	11,400	Less than 75th percentile
09132500	North Fork Gunnison River near Somerset	526	1934-95	5/17	3,230	5/24/84	9,220	Less than median
09149500	Uncompahgre River at Delta	1,115	1903-31, 1939-95	9/19	963	5/15/84	5,800	Less than 25th percentile
09152500	Gunnison River near Grand Junction	7,928	1897-99, 1902-6, 1917-95	5/17	8,000	5/23/20	35,700	Less than 25th percentile
09163500	Colorado River near Colorado-Utah State line	17,843	1951-95	5/20	29,100	5/27/84	69,800	Greater than median
09166500	Dolores River at Dolores	504	1896-1903, 1911-12, 1922-95	5/17	2,310	10/5/11	10,000	Greater than 25th percentile
09171100	Dolores River near Bedrock	2,145	1970-95	9/14	592	4/30/73	9,500	Lowest for period of record
09239500	Yampa River at Steamboat Springs	604	1904-6, 1910-95	5/17	3,930	6/14/21	6,820	Greater than median
09251000	Yampa River near Maybell	3,410	1904-5, 1916-95	5/19	15,000	5/17/84	25,100	Greater than 75th percentile
09304500	White River near Meeker	755	1901-5, 1910-95	5/17	3,530	5/25/84	6,950	Greater than median
09346400	San Juan River near Carracas	1,230	1962-95	5/17	2,040	9/6/70	9,730	Less than 25th percentile (5th lowest)
09361500	Animas River at Durango	692	1912-95	5/17	4,130	10/5/11	25,000	Greater than 25th percentile



**Figure 4.**--Comparison of monthly discharges for water year 1996 to mean monthly discharges for the reference periods indicated on the individual graphs.



**Figure 4.--**Comparison of monthly discharges for water year 1996 to mean monthly discharges for the reference periods indicated on the individual graphs--Continued.

WATER RESOURCES DATA - COLORADO, 1996  
Chemical Quality of Streamflow

To determine if substantial changes occurred during water year 1996 in the chemical quality of streamflow, an analysis was made of specific conductance measured at gaging stations on four representative streams. Specific conductance can be used to estimate the dissolved-solids concentration in water because specific conductance is directly proportional to the concentrations of ions in water. Each selected gaging station either is the most downstream station on that stream or is representative of a substantial part of the drainage area of that stream. For each selected gaging station, the distribution of specific conductance during water year 1996 is compared to the distribution of specific conductance for the reference period in figure 5.

The Wilcoxon-Mann-Whitney rank sum test was used to determine if there were significant differences between values of specific conductance for water year 1996 and values for the reference period (Ott, 1993). This test is a nonparametric counterpart to the common t-test and does not require the data to have a normal distribution.

The Wilcoxon-Mann-Whitney rank sum test was applied to the hypothesis that the mean specific conductance for water year 1996 was equal to the mean for the reference period. The procedure for testing the hypothesis involves computing a test statistic from the ranks of the data by using a pooled standard deviation and comparing the test statistic to a value obtained from a table of "Student's" t values (Box and others, 1978). The table value is  $(1 - \alpha/2)$ , where  $\alpha$  (the level of significance) equals 0.05, at the appropriate degrees of freedom for the number of samples. If the absolute value of the computed test statistic ( $t_R$ ) is greater than the tabular t value ( $t_{tab}$ ), the hypothesis is rejected. A rejection of the hypothesis is statistical evidence that the two means are different. The Wilcoxon-Mann-Whitney rank sum test results were evaluated at the 95 percent level.

Results of the Wilcoxon-Mann-Whitney rank sum tests for the four gaging stations are listed in table 3. At gaging station 09361500, Animas River at Durango, and gaging station 09306290, White River below Boise Creek, near Rangely, the mean specific conductance for water year 1996 and the mean specific conductance for the reference period are not statistically different at the specified level. However, mean specific conductance during water year 1996 was statistically different from water years 1986-95 for gaging station 09152500, Gunnison River near Grand Junction and gaging station 09095500, Colorado River near Cameo. Specific conductance exhibits an inverse relation with discharge at each of these sites. Because significantly higher base flows were observed at gaging station 09152500, Gunnison River near Grand Junction, from October through March, this likely produced the lowered specific conductance measured during these months and decreased the mean specific conductance. Mean annual discharge at gaging station 09095500, Colorado River near Cameo, was 132 percent of the mean annual discharge for the reference period. Because specific conductance is inversely related to discharge at this site as well, increased flow was characterized by decreased mean specific conductance.

**Table 3. Results of Wilcoxon-Mann-Whitney rank sum tests comparing mean specific conductance of discharge for water year 1996 with mean for the reference period at selected gaging stations**

[Specific conductance, in microsiemens per centimeter at 25 degrees Celsius;  
 $t_R$ , calculated test statistic;  $t_{tab}$ , t-values from standard table; A, accepted, R, rejected]

Gaging station identification		Specific conductance						Wilcoxon-Mann-Whitney rank sum test			
		Water year 1996			Reference Period			Period used (water years)	$t_R$	$t_{tab}$	Hypothesis
Station number	Station name	Number of values	Mean	Standard deviation	Number of values	Mean	Standard deviation				
09095500	Colorado River near Cameo	28	677	295	457	884	276	1986-95	-3.67	1.96	R
09152500	Gunnison River near Grand Junction	28	758	217	196	897	305	1986-95	-2.13	1.97	R
09306290	White River below Boise Creek, near Rangely	13	587	173	149	662	179	1986-95	-1.78	1.98	A
09361500	Animas River at Durango	6	464	211	92	445	212	1987-95	0.25	1.99	A

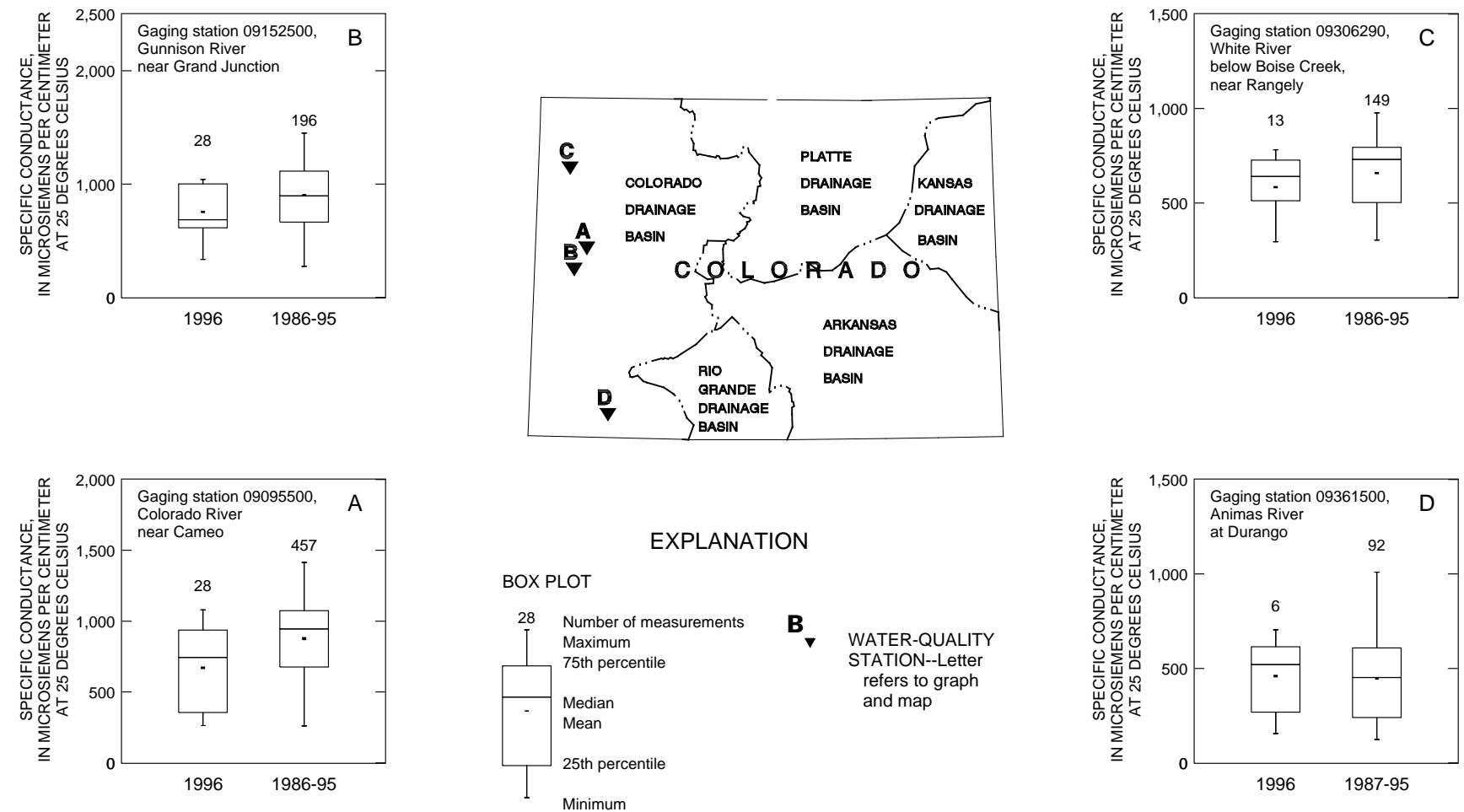


Figure 5.--Comparison of range and distribution of specific conductance measured during water year 1996 to long-term values.

## SPECIAL NETWORKS AND PROGRAMS

Hydrologic Bench-Mark Network is a network of 53 small sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 142 sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

National Trends Network (NTN) is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of wet atmospheric deposition, which includes snow, rain, sleet and hail. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP).

National Water-Quality Assessment Program (NAWQA) is a nationwide program that was implemented full-scale by the U.S. Geological Survey in 1991. The long term goals of the NAWQA program are to describe the status and trends in the quality of a large, representative part of the Nation's surface-water, and ground-water resources and to provide a sound, scientific understanding of the primary natural and human factors affecting the quality of these resources. The principle building blocks of the NAWQA program are the study-unit investigations on which national-level assessments are based. Study unit-investigations are comprehensive and include information on water, sediment, biota, and aquatic and terrestrial habitats within its boundaries. Of the 60 study unit-investigations that comprise the NAWQA program, portions of three are located in Colorado; the South Platte River, Rio Grande Valley, and Upper Colorado River Basins. Selected water-quality data for nine surface-water monitoring sites within the Upper Colorado River Basin NAWQA are included in volume two of this report.

## EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 1996 water year that began on October 1, 1995, and ended September 30, 1996. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, and water-quality data for surface and ground water. The locations of the stations where the surface-water data were collected are shown in figures 1 and 2. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

### Station Identification Numbers

Each data station, whether streamsite or well, in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for wells and, in Colorado, for surface-water stations where only infrequent measurements are made.

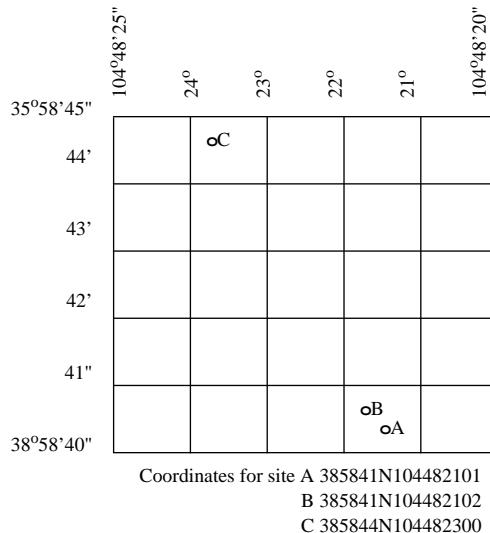
### Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indentation in the "List of Stations" in the front of this report. Each indentation represents one rank. This downstream order and system of indentation show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each station, such as 06614800, which appears just to the left of the station name, includes the two-digit Part number "06" plus the six-digit downstream-order number "614800." The Part number designates the major river basin; for example, Part "06" is the Missouri River basin.

### Latitude-Longitude System

The identification numbers for wells, springs, and miscellaneous surface-water sites are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote the degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. This site-identification number, once assigned, is a pure number, and may have no locational significance. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description. (See figure below).



Coordinates for site A 385841N104482101

B 385841N104482102

C 385844N104482300

### System for numbering wells, springs, and miscellaneous sites.

The local well number locates a well within a 10-acre tract using the U. S. Bureau of Land Management system of land subdivision. The components of the local well number proceed from the largest to the smallest land subdivisions. This is in contrast to the legal description, which proceeds from the smallest to the largest land subdivision. The largest subdivision is the survey. Colorado is governed by three surveys: The Sixth Principal Meridian Survey (S), the New Mexico Survey (N), and the Ute Survey (U). Costilla County was not included in any of the above official surveys. This report follows the convention of the Costilla County Assessor in which the northern part of the county is governed by the Sixth Principal Meridian Survey and the southern part of the county is governed by a local system called the Costilla Survey (C). The first letter of the well location designates the survey.

A survey is subdivided into four quadrants formed by the intersection of the baseline and the principal meridian. The second letter of the well location designates the quadrant: A indicates the northeast quadrant, B the northwest, C the southwest, and D the southeast. A quadrant is subdivided in the north-south direction every 6 mi by townships and is divided in the east-west direction every 6 mi by ranges. The first number of the well location designates the township and the second number designates the range.

The 36-mi<sup>2</sup> area described by the township and range designation is subdivided into 1-mi<sup>2</sup> areas called sections. The sections are numbered sequentially. The third number of the well location designates the section. The section, which contains 640 acres, is subdivided into quarter sections. The 160-acre area is designated by the first letter following the section: A indicates the northeast quarter, B the northwest, C the southwest, and D the southeast. The quarter section is subdivided into quarter-quarter sections. The 40-acre area is designated in the same manner by the second letter following the section. The 10-acre area is designated in the same manner by the third letter following the section. If more than one well is located within the 10-acre tract, the wells are numbered sequentially in the order in which they were originally inventoried. If this number is necessary, it will follow the three-letter designation.

### Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Complete records of lake or reservoir content, similarly, are those for which stage or content may be computed or estimated with reasonable accuracy for any time, or period of time. They may be obtained using a continuous stage-recording device, but need not be. Because daily mean discharges and end-of-day contents commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles. Records of miscellaneous discharge measurements or of measurements from special studies may be considered as partial records, but they are presented separately in this report. Location of all complete-record stations for which data are given in this report are shown in figure 1.

## Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relationships between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily discharges. The data obtained at a complete-record gaging station on a lake or reservoir consist of a record of stage and of notations regarding factors that may affect the relationship between stage and lake content. These data are used with stage-area and stage-capacity curves or tables to compute water-surface areas and lake storage.

Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals, with electronic recorders that store stage values on computer chips at selected time intervals, or with satellite data collection platforms that transmit near real-time data at selected time intervals to office computers. Measurements of discharge are made with current meters using methods adapted by the Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A6.

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended using: (1) logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow over dams or weirs; or (4) step-backwater techniques.

Daily mean discharges are computed by applying the daily mean stages (gage heights) to the stage-discharge curves or tables. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on the individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may obscure the stage-discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

At some stream-gaging stations the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

In computing records of lake or reservoir contents, it is necessary to have available from surveys, curves, or tables defining the relationship of stage and content. The application of stage to the stage-content curves or tables gives the contents from which daily, monthly, or yearly changes then are determined. If the stage-content relationship changes because of deposition of sediment in a lake or reservoir, periodic resurveys may be necessary to redefine the relationship. Even when this is done, the contents computed may become increasingly in error as time since the last survey increases. Discharges over lake or reservoir spillways are computed from stage-discharge relationships much as other stream discharges are computed.

For some gaging stations there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections. "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

## Data Presentation

Streamflow data in this report are presented in a new format that is considerably different from the format in data reports prior to the 1992 water year. The major changes are that statistical characteristics of discharge now appear in tabular summaries following the water-year data table and less information is provided in the text or station manuscript above the table. These changes represent the results of a pilot program to reformat the annual water-data report to meet current user needs and data preferences.

The records published for each continuous-record surface-water discharge station (gaging station) now consist of four parts, the manuscript or station description and the data table of daily mean values of discharge for the current water year with summary data; a tabular statistical summary of monthly mean flow data for a designated period, by water year; and a summary statistics table that includes statistical data of annual, daily, and instantaneous flow as well as data pertaining to annual runoff, 7-day low-flow minimums, and flow duration.

Station manuscript

The manuscript provides, under various headings, descriptive information, such as station location; period of record; historical extremes outside the period of record; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

**LOCATION.**--Information on locations is obtained from the most accurate maps available. The location of the gaging station with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages, given for only a few stations, were determined by methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council or were provided by the U.S. Army Corps of Engineers.

**DRAINAGE AREA.**--Drainage areas are measured using the most accurate maps available. Because the type of maps available varies from one drainage basin to another, the accuracy of drainage areas likewise varies. Drainage areas are updated as better maps become available.

**PERIOD OF RECORD.**--This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not, and whose location was such that flow at it can reasonably be considered equivalent with records from the present station.

**REVISED RECORDS.**--Because of new information, published records occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

**GAGE.**--The type of gage in current use, the datum of the current gage referred to sea level (see glossary), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

**REMARKS.**--All periods of estimated daily-discharge record will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily-discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a REMARKS paragraph is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, to conditions that affect natural flow at the station. In addition, information may be presented pertaining to average discharge data for the period of record; to extremes data for the period of record and the current year; and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

**COOPERATION.**--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Included here is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the U.S. Geological Survey.

**REVISIONS.**--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the District office (address given on the back of the title page of this report) to determine if the published records were ever revised after the station was discontinued. Of course, if the data for a discontinued station were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the "Remarks" and in the inclusion of a skeleton stage-capacity table when daily contents are given.

Headings for AVERAGE DISCHARGE, EXTREMES FOR PERIOD OF RECORD, AND EXTREMES FOR CURRENT YEAR have been deleted and the information contained in these paragraphs, except for the listing of secondary instantaneous peak discharges in the EXTREMES FOR CURRENT YEAR paragraph, is now presented in the tabular summaries following the discharge table or in the REMARKS paragraph, as appropriate. No changes have been made to the data presentations of lake contents.

### Data table of daily mean values

The daily table of discharge records for stream-gaging stations gives mean discharge for each day of the water year. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures for each month; the line headed "MEAN" gives the average flow in cubic feet per second during the month; and the lines headed "MAX" and "MIN" give the maximum and minimum daily mean discharges, respectively, for each month. Discharge for the month also is usually expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches or in acre-feet may be omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. In the yearly summary below the monthly summary, the figures shown are the appropriate discharges for the calendar and water years. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversions or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

If applicable, data collected at partial-record stations follow the information for continuous-record sites. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

### Statistics of monthly mean data

A tabular summary of the mean (line headed "MEAN"), maximum (line headed "MAX"), and minimum (line headed "MIN") of monthly mean flows for each month for a designated period is provided below the mean values table. The water years of the first occurrence of the maximum and minimum monthly flows are provided immediately below those figures. The designated period will be expressed as "FOR WATER YEARS \_\_\_\_\_-\_\_\_\_\_, BY WATER YEAR (WY)," and will list the first and last water years of the range of years selected from the PERIOD OF RECORD paragraph in the station manuscript. It will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript.

### Summary statistics

A table titled "SUMMARY STATISTICS" follows the statistics of monthly mean data tabulation. This table consists of four columns, with the first column containing the line headings of the statistics being reported. The table provides a statistical summary of yearly, daily, and instantaneous flows, not only for the current water year but also for the previous calendar year and for a designated period, as appropriate. The designated period selected, "WATER YEARS \_\_\_\_\_-\_\_\_\_\_, " will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript. All of the calculations for the statistical characteristics designated ANNUAL (see line headings below), except for the "ANNUAL 7-DAY MINIMUM" statistic, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

The date or water year, as appropriate, of the first occurrence of each statistic reporting extreme values of discharge is provided adjacent to the statistic. Repeated occurrences may be noted in the REMARKS paragraph of the manuscript or in footnotes. Because the designated period may not be the same as the station period record published in the manuscript, occasionally the dates of occurrence listed for the daily and instantaneous extremes in the designated-period column may not be within the selected water years listed in the heading. When this occurs, it will be noted in the REMARKS paragraph or in footnotes. Selected streamflow duration curve statistics and runoff data are also given. Runoff data may be omitted if there is extensive regulation or diversion of flow in the drainage basin.

The following summary statistics data, as appropriate, are provided with each continuous record of discharge. Comments to follow clarify information presented under the various line headings of the summary statistics table.

**ANNUAL TOTAL.**--The sum of the daily mean values of discharge for the year. At some stations the annual total discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

**ANNUAL MEAN.**--The arithmetic mean of the individual daily mean discharges for the year noted or for the designated period. At some stations the yearly mean discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

**HIGHEST ANNUAL MEAN.**--The maximum annual mean discharge occurring for the designated period.

**LOWEST ANNUAL MEAN.**--The minimum annual mean discharge occurring for the designated period.

**HIGHEST DAILY MEAN.**--The maximum daily mean discharge for the year or for the designated period.

**LOWEST DAILY MEAN.**--The minimum daily mean discharge for the year or for the designated period.

**ANNUAL 7-DAY MINIMUM.**--The lowest mean discharge for 7 consecutive days for a calendar year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1-March 31). The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day 10-year low-flow statistic.)

**INSTANTANEOUS PEAK FLOW.**--The maximum instantaneous discharge occurring for the water year or for the designated period. Note that secondary instantaneous peak discharges above a selected base discharge are stored in District computer files for stations meeting certain criteria. Those discharge values may be obtained by writing to the District Office. (See address on back of title page of this report.)

**INSTANTANEOUS PEAK STAGE.**--The maximum instantaneous stage occurring for the water year or for the designated period. If the dates of occurrence for the instantaneous peak flow and instantaneous peak stage differ, the REMARKS paragraph in the manuscript or a footnote may be used to provide further information.

**INSTANTANEOUS LOW FLOW.**--The minimum instantaneous discharge occurring for the water year or for the designated period.

**ANNUAL RUNOFF.**--Indicates the total quantity of water in runoff for a drainage area for the year. Data reports may use any of the following units of measurement in presenting annual runoff data:

Acre-foot (AC-FT) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equal to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile area drained, assuming the runoff is distributed uniformly in time and area.

Inches (INCHES) indicates the depth to which the drainage area would be covered if all of the runoff for a given time period were uniformly distributed on it.

**10 PERCENT EXCEEDS.**--The discharge that has been exceeded 10 percent of the time for the designated period.

**50 PERCENT EXCEEDS.**--The discharge that has been exceeded 50 percent of the time for the designated period.

**90 PERCENT EXCEEDS.**--The discharge that has been exceeded 90 percent of the time for the designated period.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations, and the second is a table of discharge measurements at low-flow partial-record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

#### Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified either by flagging individual daily values with the letter symbol "e" and printing a table footnote, "e Estimated," or by listing the dates of estimated record in the REMARKS paragraph of the station description.

#### Accuracy of the Records

The accuracy of streamflow records depends primarily on: (1) The stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements; and (2) the accuracy of measurements of stage, measurements of discharge, and interpretation of records.

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of their true value; "good," within 10 percent; and "fair," within 15 percent. Records that do not meet the criteria mentioned, are rated "poor." Different accuracies may be attributed to different parts of a given record.

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for daily values less than 1 ft<sup>3</sup>/s; to the nearest tenth between 1.0 and 10 ft<sup>3</sup>/s; to whole numbers between 10 and 1,000 ft<sup>3</sup>/s; and to 3 significant figures for more than 1,000 ft<sup>3</sup>/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

#### Other Records Available

The National Water Data Exchange (NAWDEX), U.S. Geological Survey, Reston, VA 22092, maintains an index of records of discharge collected by other agencies but not published by the Geological Survey. Information on records at specific sites can be obtained from that office upon request.

Information used in the preparation of the records in this publication, such as discharge-measurement notes, gage-height records, temperature measurements, and rating tables are on file in the Colorado District office. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the District office.

### Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve a variety of types of data and measurement frequencies.

In March 1989 the National Water-Quality Laboratory discovered a bias in the turbidimetric method for sulfate analysis, indicating that values below 75 mg/L have a median positive bias of 2 mg/L above the true value for the period between 1982 and 1989. Sulfate values in this report have not been corrected for this bias.

On October 1, 1995, the Colorado District adopted a new sampling and quality-assurance protocol for sampling of surface waters (Horowitz and others, 1994). This protocol was adopted as standard operating procedure for the collection and processing of all trace-element, major-ion, nutrient, and radiochemical species in filtered, surface-water samples.

### Accuracy of the Records

Accuracy of water-quality monitor records are based on: (1) The completeness of the record, (2) frequency of calibration checks, (3) the length of time and frequency that data exceed allowable error limits, (4) the magnitude of errors, and (5) confidence in the resultant shifts applied. Listed below are the limits of allowable error.

*	Temperature:	+/- 0.3 degree C.
*	Specific Conductance:	+/- 5 uS/cm or + 5% whichever is greater
*	pH:	+/- 0.2 pH units
*	Dissolved Oxygen:	+/- 0.3 mg/L or + 5% whichever is greater.

A record is rated excellent if the allowable error limits are never exceeded, good if limits are occasionally exceeded and shifts are no greater than two times the limit, fair if limits are regularly exceeded and shifts are no greater than three times the limit, and poor for all others.

### Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A continuing-record station is a site where data are collected on a regularly scheduled basis. Frequency may be once or more times daily, weekly, monthly, or quarterly. A partial-record station is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A miscellaneous sampling site is a location other than a continuing or partial-record station, where random samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between "continuing records" as used in this report and "continuous recordings," which refers to a continuous graph or a series of discrete values punched or recorded at short intervals on a paper tape, magnetic tape, computer chip, or some other medium. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this report are shown in figure 1.

### Arrangement of Records

Water-quality records collected at a surface-water daily record station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own number and name in the regular downstream-order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

### Onsite Measurements and Sample Collection

In obtaining water-quality data, a major concern needs to be assuring that the data obtained represent the *in situ* quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the *in situ* water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations," Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. All of these references are listed on pages 30 and 31 of this report. Also, detailed information on collecting, treating, and shipping samples may be obtained from the Geological Survey District office.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals, depends on flow conditions and other factors which must be evaluated by the collector.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the U.S.G.S. District Office whose address is given on the back of the title page of this report.

#### Water temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are recorded to the nearest 0.1 degree Celsius. Water temperatures measured at the time of water-discharge measurements are published in this report as supplemental water-quality for gaging stations.

#### Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment discharge characteristics of the stream.

In addition to the records of suspended-sediment discharge, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included for some stations.

#### Laboratory Measurements

Sediment samples, samples for biochemical-oxygen demand (BOD), samples for indicator bacteria, and daily samples for specific conductance are analyzed locally, all other samples are analyzed in the Geological Survey laboratories in Arvada, CO. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1. Methods used by the Geological Survey laboratories are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4.

Historical and current-year dissolved trace-element concentrations are reported herein for water that was collected, processed, and analyzed by using either ultraclean or other than ultraclean techniques. If ultraclean techniques were used, then those concentrations are reported in nanograms per liter. If other than ultraclean techniques were used, then those concentrations are reported in micrograms per liter and could reflect contamination introduced during some phase of the procedure.

### Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information, as appropriate, is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.--Information on instrumentation is given only if a water-quality monitor temperature record, sediment pumping sampler, or other sampling device is in operation at a station.

REMARKS.--Remarks provide added information pertinent to the collection, analysis, or computation of the records.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently, because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to insure the most recent updates.

The surface-water-quality records for partial-record stations and miscellaneous sampling sites are published in separate tables following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

### Remark Codes

The following remarks codes may appear with the water-quality data in this report:

#### PRINTED OUTPUT REMARK

e Estimated value

> Actual value is known to be greater than the value shown

< Actual value is known to be less than the value shown

K Based on non-ideal colony count

M Presence of material verified but not quantified

### Records of Ground-Water Quality

Records of ground-water quality in this report differ from other types of records in that for most sampling sites they consist of only one set of measurements for the water year. The quality of ground water ordinarily changes only slowly; therefore, for most general purposes one annual sampling, or only a few samples taken at infrequent intervals during the year, is sufficient. Frequent measurement of the same constituents is not necessary unless one is concerned with a particular problem, such as monitoring for trends in nitrate concentration. In the special cases where the quality of ground water may change more rapidly, more frequent measurements are made to identify the nature of the changes.

### Data Collection and Computation

The records of ground-water quality in this report were obtained mostly as a part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some counties but none are presented for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality statewide. Such a view can be attained only by considering records for this year in context with similar records obtained for these and other counties in earlier years.

Most methods for collecting and analyzing water samples are described in the "U.S. Geological Survey Techniques of Water-Resources Investigations" manuals listed at the end of the introductory text. The values reported in this report represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. All samples were obtained by trained personnel. The wells sampled were pumped long enough to assure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, comprising the casings.

### Data Presentation

The records of ground-water quality are published in a section titled QUALITY OF GROUND WATER immediately following the ground-water-level records. Data for quality of ground water are listed alphabetically by County, and are identified by well number. The prime identification number for wells sampled is the 15-digit number derived from the latitude-longitude locations. No descriptive statements are given for ground-water-quality records; however, the well number, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses of the ground water. The REMARK codes listed for surface-water-quality records are also applicable to ground-water-quality records.

### ACCESS TO WATSTORE DATA

The U.S. Geological Survey is the principal Federal water-data agency and, as such, collects and disseminates about 70 percent of the water data currently being used by numerous State, local, private, and other Federal agencies to develop and manage our water resources. As part of the Geological Survey's program of releasing water data to the public, a large-scale computerized system has been developed for the storage and retrieval of water data collected through its activities. The National Water Data Storage and Retrieval System (WATSTORE) was established in 1972 to provide an effective and efficient means for the processing and maintenance of water-data collected through the activities of the U.S. Geological Survey and to facilitate release of the data to the public. A variety of useful products ranging from data tables to complex statistical analyses such as Log Pearson Type III, can be produced using WATSTORE. The system resides on the central computer facilities of the U.S. Geological Survey at its National Center in Reston, Virginia, and consists of related files and data bases.

- \* Station Header File - Contains descriptive information on more than 440,000 sites throughout the United States and its territories where the U.S. Geological Survey collects or has collected data.
- \* Daily Values File - Contains more than 220 million daily values of stream flows, stages, reservoir contents, water temperatures, specific conductances, sediment concentrations, sediment discharges, and ground-water levels.
- \* Peak Flow File - Contains approximately 500,000 maximum (peak) streamflow and gage-height values at surface-water sites.
- \* Water Quality File - Contains approximately 2 million analyses of water samples that describe the chemical, physical, biological, and radio-chemical characteristics of both surface and ground water.
- \* Ground-Water Site Inventory Data Base - Contains inventory data for more than 900,000 wells, springs, and other sources of ground water. The data includes site location, geohydrologic characteristics, well-construction history, and one-time field measurements such as water temperature.

In 1976, the U.S. Geological Survey opened WATSTORE to the public for direct access. The signing of a Memorandum of Agreement with the Survey is required to obtain direct access to WATSTORE. The system can be accessed either synchronously or asynchronously. The requester will be expected to pay all computer costs he/she incurs. Direct access may be obtained by contacting:

U.S. Geological Survey  
National Water Data Exchange  
421 USGS National Center  
Reston, VA 20192

In addition to data retrieval by direct access to WATSTORE, data are available in various machine-readable formats on magnetic tape or 5-1/4 inch floppy disk. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division's District offices (see address on the back of the title page).

## DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also table for converting English units to International System (SI) Units on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equal to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Adenosine triphosphate (ATP) is an organic, phosphate-rich, compound important in the transfer of energy in organisms. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

Algae are mostly aquatic single-celled, colonial, or multicelled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Alkalinity represents the capacity of solutes in an aqueous sample to neutralize acid. Total alkalinity titrations are performed in the field (FIELD) environment on an aqueous sample, filtered through a 0.45 micrometer filter (DIS), to an inflection point near pH = 4.5, using the iterative-titration (IT) method. Alkalinity titrations in the laboratory (LAB) are performed on unfiltered samples using the fixed-endpoint (FEP) method to pH = 4.5. On occasion, for chemical or hydrologic considerations, alkalinity titrations are performed in the field environment on unfiltered, whole-water (WWR) samples and noted. Column headings in this publication containing total alkalinity results will display the location: FIELD or LAB; titration method: IT or FEP; and type of aqueous sample: DIS or WWR.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, while others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C ± 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warm blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in the intestine of warmblooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as Gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organism which produce red or pink colonies with 48 hours at 35°C ± 1.0°C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the sediment mixture of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by micro-organisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m<sup>3</sup>), and periphyton and benthic organisms in grams per square meter (g/m<sup>2</sup>).

Dry mass refers to the mass of residue present after drying in an oven at 105°C for zooplankton and periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry-mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and the ash mass and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day is the volume of water represented by flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons or 2,447 cubic meters.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common green pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at a gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic foot per second (ft<sup>3</sup>/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Cubic feet per second per square mile (ft<sup>3</sup>/s)/mi<sup>2</sup> is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment) that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific time.

Instantaneous discharge is the discharge at a particular instant of time.

Annual 7-day minimum is the lowest mean discharge for 7 consecutive days for a calendar year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1 - March 31). The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day 10-year low-flow statistic.)

Dissolved refers to that material in a representative water sample which passes through a 0.45 um membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved-solids concentration of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage" although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations and is expressed as the equivalent concentration of calcium carbonate (CaCO<sub>3</sub>).

Hydrologic Bench-Mark Network is a network of 53 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an eight-digit number.

Land-surface datum (lsd) is a datum plane that is approximately at land surface at each groundwater observation well.

Measuring point (MP) is an arbitrary permanent reference point from which the distance to the water surface in a well is measured to obtain the water level.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Methylene blue active substances (MBAS) are apparent detergents. The determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

Micrograms per gram (ug/g) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per liter (UG/L, ug/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L and is based on the mass of dry sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD of 1929) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 142 sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

National Trends Network (NTN) is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP).

Organism is any living entity.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per unit area habitat, usually square meter ( $m^2$ ), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliter (mL) or liter (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Parameter Code is a 5-digit number used in the U.S. Geological Survey computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The Environmental Protection Agency assigns and approves all requests for new codes.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of a particle determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter or particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with the recommendation made by the American Geophysical Unit Subcommittee on Sediment Terminology. The classification is as follows:

<u>Classification</u>	<u>Size (mm)</u>			<u>Method of analysis</u>
Clay.....	0.00024	-	0.004	Sedimentation
Silt.....	.004	-	.062	Sedimentation
Sand.....	.062	-	2.0	Sedimentation or sieve
Gravel.....	2.0	-	64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic matter is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population in terms of types, numbers, mass, or volume.

Periphyton is the assemblage of microorganisms attached to and living upon submerged solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms.

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

Picocurie (PC, pCi) is one trillionth ( $1 \times 10^{-12}$ ) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields  $3.7 \times 10^{10}$  radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is a community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton is dominated by small crustaceans and rotifers.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly, green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time mg C/(m<sup>2</sup>.time) for periphyton and macrophytes and mg C/(m<sup>3</sup>.time) for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time mgO/(m<sup>2</sup>.time) for periphyton and macrophytes and mg O/(m<sup>3</sup>.time) for phytoplankton are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Return period is the average time interval between occurrences of a hydrological event of a given or greater magnitude, usually expressed in years. May also be called recurrence interval.

Runoff in inches (IN, in) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sea Level In this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)--A geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Bed load is the sediment that is transported in a stream by rolling, sliding, or skipping along the bed and very close to it. In this report, bed load is considered to consist of particles in transit within 0.25 ft of the streambed.

Bed load discharge (tons per day) is the quantity of bed load measured by dry weight that moves past a section as bed load in a given time.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Suspended-sediment discharge (tons/day) is the rate at which dry mass of sediment passes a section of a stream or is the quantity of sediment, as measured by dry mass or volume, that passes a section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge ( $\text{ft}^3/\text{s}$ ) x 0.0027.

Suspended-sediment load is a general term that refers to material in suspension. It is not synonymous with either discharge or concentration.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry mass or volume, that passes a section during a given time.

Total-sediment load or total load is a term which refers to the total sediment (bed load plus suspended-sediment load) that is in transport. It is not synonymous with total-sediment discharge.

7-day 10-year low flow (7 Q<sub>10</sub>) is the discharge at the 10-year recurrence interval taken from a frequency curve of annual values of the lowest mean discharge for 7 consecutive days (the 7-day low flow).

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which generally unsatisfactory for irrigation.

Solute is any substance that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and the volume of water, per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is they physical surface upon which an organism lives.

Natural substrate refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lives.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic organism collection, and plexiglas strips for periphyton.

Surface area of a lake is that area outlined on the latest U.S.G.S. topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is the part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is associated with the material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 um membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituents.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 um membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierachial scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata, is the following:

Kingdom.....	Animal
Phylum.....	Arthropoda
Class.....	Insecta
Order.....	Ephemeroptera
Family.....	Ephemeridae
Genus.....	<u>Hexagenia</u>
Species.....	<u>Hexagenia limbata</u>

Thermograph is an instrument that continuously records variation of temperature on a chart. The more general term "temperature recorder" is used in the table headings and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY) is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determined all of the constituent in the sample.)

Total discharge is the total quantity of any individual constituent, as measured by dry mass or volume, that passes through a stream cross-section per unit of time. This term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses, because different digestion procedures are likely to produce different analytical results.

Tritium Network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1980, is called the "1980 water year."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976).

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

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## DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE ONLY STATIONS

The following continuous-record surface-water discharge or stage-only stations (gaging stations) in Colorado have been discontinued or converted to partial-record stations. Daily streamflow or stage records were collected and published for the period of record, expressed in water years, shown for each station. [--, data unavailable]

Station name	Station number	Drainage area (sq mi)	Period of record (water years)
Lady Creek near Grand Lake, CO	09010100	0.08	1969-75
Jimmy Creek near Grand Lake, CO	09010400	0.08	1969-75
Onahu Creek near Grand Lake, CO	09010600	8.84	1969
Colorado River near Grand Lake, CO	09011000	102	1904-18, 1933-86
Little Columbine Creek above Shadow Mountain Lake at Grand Lake, CO	09011500	1.65	1950-55
Tonahutu Creek near Grand Lake, CO	09012400	16.0	1969
Harbison Ditch near Grand Lake, CO	09012410	--	1969
Tonahutu Creek below Harbison Ditch near Grand Lake, CO	09012420	--	1969
North Inlet at Grand Lake, CO	09012500	45.9	1905-09, 1910-12, 1947-55
East Inlet near Grand Lake, CO	09013500	27.2	1947-55
Grand Lake Outlet at Grand Lake, CO	09014000	76.3	1904-09, 1910-13
Colorado River below Shadow Mountain Reservoir, CO	09015000	190	1947-59
Columbine Creek above Lake Granby near Grand Lake, CO	09015500	7.38	1950-55
Roaring Fork above Lake Granby, CO	09016000	5.95	1951-55
Arapahoe Creek at Monarch Lake Outlet, CO	09016500	46.9	1944-71
Arapahoe Creek below Monarch Lake, CO	09017000	56.9	1934-44
Stillwater Creek above Lake Granby, CO	09018000	17.5	1950-55
Colorado River below Lake Granby, CO	09019000	312	1950-82
Willow Creek near Granby, CO	09020000	109	1934-53
Willow Creek above Willow Creek Reservoir, CO	09020500	127	1953-60
Willow Creek below Willow Creek Reservoir, CO	09021000	134	1953-82
Moffat Water Tunnel at East Portal, CO	09022500	--	1935-82
Fraser River above Winter Park, CO	09023500	22.4	1907-09, 1934-37
Ranch Creek Ditch near Fraser, CO	09031900	--	1948-67
Ranch Creek near Tabernash, CO	09032500	51.3	1934-60
Meadow Creek near Tabernash, CO	09033000	8.03	1935-56
Strawberry Creek near Granby, CO	09033500	11.6	1935-45
Fraser River at Granby, CO	09034000	297	1904-09, 1937-55
Colorado River at Hot Sulphur Springs, CO	09034500	825	1904-94
Little Muddy Creek near Parshall, CO	09034800	6.52	1953-65
South Fork Williams Fork at Upper Station near Ptarmigan Pass, CO	09035820	2.78	1984-87
South Fork Williams Fork below Old Baldy Mountain near Leal, CO	09035880	21.8	1985-88
South Fork Williams Fork near Ptarmigan Pass, CO	09035830	4.01	1984-88
South Fork Williams Fork above Tributary near Ptarmigan Pass, CO	09035840	5.53	1984-87
South Fork Williams Fork Tributary near Ptarmigan Pass, CO	09035845	0.60	1984-88
South Fork Williams Fork above Short Creek near Ptarmigan Pass, CO	09035850	6.53	1984-87
South Fork Williams Fork below Short Creek near Ptarmigan Pass, CO	09035870	20.0	1984-87
Keyser Creek near Leal, CO	09036500	13.8	1942-52
Williams Fork near Scholl, CO	09037000	141	1910-17
Skylark Creek near Parshall, CO	09037200	2.42	1958-65
Troublesome Creek near Pearmont, CO	09039000	44.6	1953-93
Troublesome Creek at Atmore Ranch near Troublesome, CO	09039500	48.8	1937-43
East Fork Troublesome Creek near Troublesome, CO	09040000	76.0	1937-43, 1953-83
Troublesome Creek near Troublesome, CO	09040500	168	1904-05, 1921-22, 1937-56
Antelope Creek near Kremmling, CO	09041100	11.5	1955-68
Red Dirt Creek near Kremmling, CO	09041200	19.0	1955-74
Pass Creek near Kremmling, CO	09041300	17.8	1957-70
Muddy Creek at Kremmling, CO	09041500	290	1904-05, 1982-95
Monte Cristo Creek near Hoosier Pass, CO	09043000	5.66	1953-58
Hoosier Creek near Hoosier Pass, CO	09044000	1.15	1953-58
Bemrose Creek near Hoosier Pass, CO	09044500	1.95	1953-58
McCullough Gulch near Breckenridge, CO	09045000	4.79	1953-58
Spruce Creek near Breckenridge, CO	09045500	5.23	1953-58
Blue River at Dillon, CO	09047000	128	1910-61
Snake River at Dillon, CO	09048000	90.9	1910-19, 1929-64
West Tenmile Creek at Copper Mountain, CO	09049200	21.0	1973-79
Tenmile Creek at Frisco, CO	09050000	81.0	1942-50
Tenmile Creek at Dillon, CO	09050500	111	1910-19, 1929-61
Straight Creek near Dillon, CO	09051000	12.9	1943-52

## DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE ONLY STATIONS (Continued)

The following continuous-record surface-water discharge or stage-only stations (gaging stations) in Colorado have been discontinued or converted to partial-record stations. Daily streamflow or stage records were collected and published for the period of record, expressed in water years, shown for each station. [--, data unavailable]

Station name	Station number	Drainage area (sq mi)	Period of record (water years)
Willow Creek near Dillon, CO	09051500	13.4	1942-51
Rock Creek near Dillon, CO	09052000	15.8	1942-56, 1966-94
Boulder Creek at upper station, near Dillon, CO	09052400	8.56	1966-94
Boulder Creek near Dillon, CO	09052500	9.89	1942-51
Slate Creek at upper station, near Dillon, CO	09052800	14.2	1966-94
Slate Creek near Dillon, CO	09053000	16.6	1942-54
Blue River above Green Mountain Reservoir, CO	09053500	511	1943-71, 1985-88
Black Creek below Black Lake, near Dillon, CO	09054000	15.0	1942-49, 1966-94
Black Creek above Green Mountain Reservoir, CO	09054500	18.5	1944-53
Otter Creek above Green Mountain Reservoir, CO	09055000	8.40	1944-53
Cataract Creek near Kremmling, CO	09055300	12.0	1966-94
Cataract Creek above Green Mountain Reservoir, CO	09055500	13.6	1944-53
Blue River near Kremmling, CO	09056000	571	1904-08
Blue River below Spruce Creek near Kremmling, CO	09057520	645	1989-94
Colorado River near Radium, CO	09058030	2,412	1981-90
Dickson Creek near Minturn, CO	09058600	3.41	1964-71
Rock Creek near Toponas, CO	09060500	47.6	1952-81
Egeria Creek near Toponas, CO	09060700	28.2	1965-73
Big Alkali Creek near Burns, CO	09060800	14.2	1958-65
Catamount Creek near Burns, CO	09060900	5.31	1955-61
Big Alkali Creek below Castle Creek near Burns, CO	09060950	34.2	1981-86
Sunnyside Creek near Burns, CO	09061000	9.04	1952-58
Columbine Ditch near Fremont Pass, CO	09061500	--	1930-82
Ewing Ditch at Tennessee Pass, CO	09062000	--	1908-82
Wurtz Ditch near Tennessee Pass, CO	09062500	--	1931-82
Turkey Creek at Red Cliff, CO	09063500	29.4	1913-21, 1944-56
Black Gore Creek near Vail, CO	09066050	19.6	1974-79
Gore Creek at Vail, CO	09066250	57.3	1974-79
Gore Creek near Minturn, CO	09066500	101	1911-14, 1944-56
Beaver Creek at Avon, CO	09067000	14.8	1911, 1912-14, 1974-87, 1988
Alkali Creek near Wolcott, CO	09067300	27.3	1958-65
Eagle River at Eagle, CO	09067500	629	1910-24
East Brush Creek at Yeoman Park near Eagle, CO	09067700	9.74	1965-72
Brush Creek near Eagle, CO	09068000	71.4	1950-72
Gypsum Creek near Gypsum, CO	09069500	62.7	1950-55, 1965-72
Colorado River near Glenwood Springs, CO	09071100	--	1941-85
Colorado River at Glenwood Springs, CO	09072500	4,558	1899-1966
Roaring Fork above Lost Man Creek near Aspen, CO	09072550	9.10	1980-86
Lincoln Creek below Grizzly Reservoir near Aspen, CO	09073005	15.2	1980-86
Roaring Fork River at Aspen, CO	09073500	109	1910-21, 1931-64
Hunter Creek above Midway Creek near Aspen, CO	09073700	6.18	1964-80
Hunter Creek Feeder Conduit near Aspen, CO	09073720	--	1981-83
Midway Creek Feeder Conduit near Aspen, CO	09073790	--	1981-83
Midway Creek near Aspen, CO	09073800	8.62	1971-80
No Name Creek Feeder Conduit near Aspen, CO	09073890	--	1981-83
No Name Creek near Aspen, CO	09073900	6.54	1971-80
Castle Creek above Aspen, CO	09074800	32.2	1969-94
Castle Creek near Aspen, CO	09075000	67.0	1911-20
Roaring Fork below Aspen, CO	09075500	228	1913-18
Maroon Creek above Aspen, CO	09075700	35.4	1969-94
Maroon Creek near Aspen, CO	09076000	41.7	1910-17
Owl Creek near Aspen, CO	09076520	6.60	1974-89
Fryingpan River Feeder Canal near Norrie, CO	09077150	--	1971-83
Fryingpan River near Ivanhoe Lake, CO	09077200	18.7	1963-82
Lily Pad Feeder Canal near Norrie, CO	09077250	--	1972-83
Granite Creek Feeder Conduit near Norrie, CO	09077300	--	1981-83
Fryingpan River near Norrie, CO	09077400	32.2	1963-67
Ivanhoe Creek near Norrie, CO	09077600	9.12	1963-76
Ivanhoe Creek Feeder Canal near Nast, CO	09077605	--	1976-83
Ivanhoe Creek near Nast, CO	09077610	9.43	1976-82

## DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE ONLY STATIONS (Continued)

The following continuous-record surface-water discharge or stage-only stations (gaging stations) in Colorado have been discontinued or converted to partial-record stations. Daily streamflow or stage records were collected and published for the period of record, expressed in water years, shown for each station. [-, data unavailable]

Station name	Station number	Drainage area (sq mi)	Period of record (water years)
South Fork Fryingpan River Feeder Canal near Norrie, CO	09077750	--	1971-83
South Fork Fryingpan River at Upper Station near Norrie, CO	09077800	11.5	1963-82
South Fork Fryingpan River near Norrie, CO	09077900	17.3	1963-67
Chapman Gulch Feeder Canal near Norrie, CO	09077940	--	1971-83
Chapman Gulch near Nast, CO	09077945	6.00	1973-82
Chapman Gulch near Norrie, CO	09077950	6.38	1966-72
Sawyer Creek Feeder Canal near Norrie, CO	09077960	--	1972-83
Fryingpan River at Norrie, CO	09078000	90.6	1910-17, 1947-83
North Fork Fryingpan River Feeder Canal near Norrie, CO	09078040	--	1980-83
Morman Creek Feeder Canal near Norrie, CO	09078050	--	1979-83
Carter Creek Feeder Canal near Norrie, CO	09078060	--	1980-83
North Fork Fryingpan River above Cunningham Creek near Norrie, CO	09078100	12.0	1963-80
Cunningham Creek Feeder Canal near Norrie, CO	09078140	--	1979-83
Middle Cunningham Creek Feeder Canal near Norrie, CO	09078150	--	1980-83
Cunningham Creek near Norrie, CO	09078200	7.12	1963-80
North Fork Fryingpan River below Cunningham Creek near Norrie, CO	09078300	24.2	1963-68
North Fork Fryingpan River near Norrie, CO	09078500	42.0	1910-17, 1947-82
Lime Creek near Troutville, CO	09078900	4.56	1963-68
Lime Creek at Troutville, CO	09079000	7.76	1950-56
Lime Creek at Thomasville, CO	09079500	35.0	1950-56
Fryingpan River at Thomasville, CO	09080000	173	1915-20
Fryingpan River at Meredith, CO	09080100	191	1910-15, 1966-80
Fryingpan River at Ruedi, CO	09080200	226	1959-64
Rocky Fork Creek near Meredith, CO	09080300	12.3	1968-82
West Sopris Creek near Basalt, CO	09080800	14.4	1963-68
Crystal River at Marble, CO	09081500	74.3	1910-15, 1916-17
Crystal River at Placita, CO	09081550	107	1959-73, 1975-77
Crystal River near Redstone, CO	09082500	229	1935-63
North Thompson Creek near Carbondale, CO	09082800	26.8	1963-79
Thompson Creek near Carbondale, CO	09083000	75.7	1950-60, 1964-68
Prince Creek near Carbondale, CO	09083700	3.04	1963-68
Cattle Creek near Carbondale, CO	09084000	31.1	1950-55, 1962-72
Fourmile Creek near Carbondale, CO	09084500	8.10	1941-47
Fourmile Creek near Glenwood Springs, CO	09084600	16.7	1957-65
Canyon Creek above New Castle, CO	09085200	23.8	1969-86
East Canyon Creek near New Castle, CO	09085300	15.1	1969-83
Possum Creek near New Castle, CO	09085400	6.41	1969-82
Canyon Creek near New Castle, CO	09085500	55.0	1954-60
Elk Creek at New Castle, CO	09087500	180	1922-24, 1954-60
Colorado River at New Castle, CO	09087600	6,308	1966-72
Baldy Creek near New Castle, CO	09088000	15.3	1955-61
West Divide Creek below Willow Creek near Raven, CO	09089000	34.9	1938-47, 1963-70
East Divide Creek near Silt, CO	09090700	40.8	1959-65
East Rifle Creek near Rifle, CO	09091500	34.3	1936-43, 1956-64
Rifle Creek near Rifle, CO	09092000	137	1939-46, 1952-64
Beaver Creek near Rifle, CO	09092500	7.90	1952-82
Battlement Creek near Parachute, CO	09092600	10.5	1956-65
West Parachute Creek near Parachute, CO	09092800	48.1	1957-62
Northwater Creek near Anvil Points, CO	09092830	12.6	1976-83
East Middle Fork Parachute Creek near Rio Blanco, CO	09092850	22.1	1976-83
East Fork Parachute Creek near Anvil Points, CO	09092960	14.5	1976-83
East Fork Parachute Creek near Rulison, CO	09092970	20.4	1976-83
Ben Good Creek near Rulison, CO	09092980	4.04	1976-83
Parachute Creek near Parachute, CO	09093000	141	1948-54, 1964-70, 1975-86
Parachute Creek at Parachute, CO	09093500	198	1921-27, 1948-54, 1975-82

## DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE ONLY STATIONS (Continued)

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Station name	Station number	Drainage area (sq mi)	Period of record (water years)
Roan Creek above Clear Creek near De Beque, CO	09094200	151	1962-68
Clear Creek near De Beque, CO	09094400	110	1966-68
Roan Creek near De Beque, CO	09095000	321	1921-26, 1962-72, 1975-81
Dry Fork near De Beque, CO	09095400	109	1974-82
Government Highline Canal at 16 Road near Loma, CO	09095526	--	1975-85
Lateral No 48 near Mack, CO	09095528	--	1973-81
Government Highline Canal above Camp 7 Spillway near Mack, CO	090955285	--	1983-85
Camp No 7 Spillway near Mack, CO	09095529	--	1975-82
Government Highline Canal near Mack, CO	09095530	--	1973-82
Plateau Creek near Heiberger, CO	09095800	18.6	1958-64
Plateau Creek at Upper Station near Collbran, CO	09096000	24.1	1937-43, 1951-58
Plateau Creek near Collbran, CO	09096500	80.4	1921-80
Buzzard Creek below Owens Creek near Heiberger, CO	09096800	49.7	1955-70
Buzzard Creek near Collbran, CO	09097500	143	1921-80
Brush Creek near Collbran, CO	09097600	9.57	1955-67
Atkinson Creek near Collbran, CO	09098500	0.85	1952-55
East Fork Big Creek near Collbran, CO	09099000	4.92	1940-41, 1950-55
Big Creek at Upper Station near Collbran, CO	09099500	20.2	1945-56
Big Creek near Collbran, CO	09100000	27.1	1937-44
Cottonwood Creek at Upper Station near Molina, CO	09100500	14.0	1945-57
Cottonwood Creek near Molina, CO	09101000	17.8	1937-43
Bull Creek at Upper Station near Molina, CO	09101500	9.85	1945-53
Coon Creek near Mesa, CO	09104000	9.35	1937-43
Mesa Creek near Mesa, CO	09104500	6.79	1937-60
Colorado River near Palisade, CO	09106000	8,738	1901-33
Kiefer Extension to Grand Valley Canal near Fruita, CO	09106104	--	1975-85
Kiefer Extension to Grand Valley Canal near Loma, CO	09106108	--	1975-85
Lewis Wash near Grand Junction, CO	09106200	4.72	1973-79
Texas Creek at Taylor Park, CO	09107500	40.4	1929-34, 1988-92
Willow Creek at Taylor Park, CO	09108000	--	1913-14, 1929-34
East River near Crested Butte, CO	09110500	90.3	1939-51
Coal Creek near Crested Butte, CO	09111000	8.65	1941-46
Slate River near Crested Butte, CO	09111500	70.1	1940-51
Cement Creek near Crested Butte, CO	09112000	26.1	1910-13, 1940-51
Castle Creek near Baldwin, CO	09113000	20.3	1944-50
Ohio Creek at Baldwin, CO	09113300	47.2	1958-70
Ohio Creek near Baldwin, CO	09113500	121	1940-50, 1958-71, 1979-81
Ohio Creek near Gunnison, CO	09114000	167	1944-50
Tomichi Creek at Sargent, CO	09115500	149	1916-22, 1937-72
Tomichi Creek near Doyleville, CO	09116000	209	1944-50
Tomichi Creek at Parlin, CO	09117000	427	1944-51, 1963-70
Quartz Creek near Ohio City, CO	09118000	106	1937-50, 1959-70
Cochetopa Creek near Parlin, CO	09118500	361	1940-48
Gunnison River at Iola, CO	09120500	2,352	1899, 1903, 1937-51
Cebolla Creek near Lake City, CO	09121500	25.2	1946-54
Cebolla Creek near Powderhorn, CO	09121800	248	1960-63
Cebolla Creek at Powderhorn, CO	09122000	340	1937-55
Soap Creek near Sapinero, CO	09122500	57.4	1955-66
Soap Creek at Sapinero, CO	09123000	86.0	1910-14, 1945-52
Lake Fork below Mill Gulch near Lake City, CO	09123400	57.5	1981-86
Lake Fork at Lake City, CO	09123500	115	1917-24, 1928-30, 1931-37
Henson Creek at Lake City, CO	09124000	83.1	1917-19, 1928-30, 1931-37

## DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE ONLY STATIONS (Continued)

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Station name	Station number	Drainage area (sq mi)	Period of record (water years)
Gunnison River below Blue Mesa Dam, CO	09124700	3,453	1963-68
Curecanti Creek near Sapinero, CO	09125000	35.0	1945-72
Cimarron River at Cimarron, CO	09126500	209	1902-05, 1962-67
Cimarron River below Squaw Creek at Cimarron, CO	09127000	229	1942-52
Crystal Creek near Maher, CO	09127500	42.2	1916-19, 1945-54, 1960-69
Gunnison River above Gunnison Tunnel, CO	09127998	3,965	1905-65
Gunnison Tunnel near Montrose, CO	09127999	3,965	1910-65
Smith Fork near Crawford, CO	09128500	42.8	1935-94
Smith Fork at Crawford, CO	09129000	63.1	1954-60
Iron Creek near Crawford, CO	09129500	71.5	1947-52
Smith Fork near Lazear, CO	09129600	166	1976-87
Clear Fork near Ragged Mountain, CO	09129800	38.5	1965-73
East Muddy Creek near Bardine, CO	09130500	133	1934-53
West Muddy Creek near Ragged Mountain, CO	09130600	7.42	1955-65
West Muddy Creek near Bowie, CO	09130800	27.7	1968-74
Cow Creek near Paonia, CO	09131100	12.0	1968-82
West Muddy Creek near Somerset, CO	09131200	49.9	1961-73
Ruby Anthracite Creek near Floresta, CO	09132000	20.7	1938-43, 1954-58
Anthracite Creek near Somerset, CO	09132050	94.6	1977-81
Main Hubbard Creek near Paonia, CO	09132700	1.33	1960-68
Middle Hubbard Creek near Paonia, CO	09132800	1.36	1960-68
West Hubbard Creek near Paonia, CO	09132900	2.34	1960-73
Hubbard Creek near Bowie, CO	09132920	20.7	1968-74
North Fork Gunnison River near Paonia, CO	09133000	653	1921-32
Minnesota Creek at Paonia, CO	09134050	53.5	1976-79
Cottonwood Creek near Hotchkiss, CO	09134200	41.0	1976-79
Leroux Creek near Cedaredge, CO	09134500	34.5	1936-56, 1960-69
Cow Creek near Cedaredge, CO	09134700	7.24	1960-69
Leroux Creek near Lazear, CO	09135000	51.8	1917-26
Gunnison River near Lazear, CO	09136200	5,241	1962-85
Currant Creek near Cedaredge, CO	09136500	42.2	1948-54
Currant Creek near Read, CO	09137050	56.9	1976-87
Dirty George Creek near Grand Mesa, CO	09137800	10.6	1957-69
Ward Creek near Grand Mesa, CO	09139200	12.2	1957-69
Ward Creek near Cedaredge, CO	09139500	20.4	1939-46
Kiser Creek near Grand Mesa, CO	09140200	5.35	1957-69
Kiser Creek near Cedaredge, CO	09140500	10.8	1939-46
Cottonwood Creek near Grand Mesa, CO	09140700	2.15	1957-68
Cottonwood Creek near Cedaredge, CO	09141000	4.39	1939-46
Youngs Creek near Grand Mesa, CO	09141200	10.3	1957-69
Youngs Creek near Cedaredge, CO	09141500	11.3	1939-46
Ward Creek below Kiser Creek near Cedaredge, CO	09142000	52.2	1944-52
Surface Creek at Eckert, CO	09144000	43.6	1939-51
Tongue Creek at Cory, CO	09144200	197	1957-68, 1976-87
Red Mountain Creek near Ironton, CO	09144500	18.1	1947-55
Uncompahgre River At Ouray, CO	09145000	42.0	1908, 1910-24
Canyon Creek at Ouray, CO	09145500	25.8	1910-15
Uncompahgre River below Ouray, CO	09146000	75.2	1913-29
West Fork Dallas Creek near Ridgway, CO	09146400	14.1	1955-70
East Fork Dallas Creek near Ridgway, CO	09146500	16.8	1955-70 1960-70
Beaver Creek near Ridgway, CO	09146550	12.2	1960-68
Pleasant Valley Creek near Noel, CO	09146600	8.17	1955-67
Cow Creek near Ridgway, CO	09147100	45.4	1955-73
Spring Creek near Beaver Hill, CO	09149400	41.6	1977-81
Spring Creek near Montrose, CO	09149420	76.6	1977-81
Potter Creek near Columbine Pass, CO	09149900	7.10	1980-81
Potter Creek near Olathe, CO	09149910	26.0	1980-81
Roubideau Creek at Mouth near Delta, CO	09150500	242	1938-54, 1976-83
Escalante Creek near Delta, CO	09151500	209	1922-23, 1970-89
Kannah Creek near Whitewater, CO	09152000	61.9	1917-82

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Station name	Station number	Drainage area (sq mi)	Period of record (water years)
Orchard Mesa Drain at Grand Junction, CO	09152600	3.70	1973-83
Leach Creek at Durham, CO	09152650	24.8	1973-83
Adobe Creek near Fruita, CO	09152900	15.4	1973-83
Colorado River near Fruita, CO	09153000	17,100	1907-23
Big Salt Wash at Fruita, CO	09153270	142	1973-77
Reed Wash near Loma, CO	09153300	29.3	1973-83
West Salt Creek near Carbonera, CO	09153330	95.6	1979-82
West Salt Creek near Mack, CO	09153400	168	1973-83
Badger Wash near Mack, CO	09163050	6.51	1973-82
East Salt Creek near Mack, CO	09163310	197	1973-82
Mack Wash near Mack, CO	09163340	15.9	1973-82
Salt Creek near Mack, CO	09163490	436	1973-83
Hay Press Creek above Fruita Reservoir 3 near Glade Park, CO	09163570	0.77	1983-88
West Fork Dolores River near Stoner, CO	09166000	162	1941-44
Lost Canyon Creek at Dolores, CO	09167000	73.5	1922-27, 1941-48
Plateau Creek near Mouth near Dolores, CO	09167450	83.0	1982-83
Dolores River near McPhee, CO	09167500	817	1938-52
Disappointment Creek near Dove Creek, CO	09168100	147	1957-86
Big Gypsum Creek near Slick Rock, CO	09168800	43.9	1979-81
West Paradox Creek near Paradox, CO	09170500	23.6	1944-52
West Paradox Creek above Bedrock, CO	09170800	53.3	1971-73
West Paradox Creek near Bedrock, CO	09171000	55.3	1944-52
San Miguel River near Telluride, CO	09171200	42.8	1959-65
San Miguel River at Fall Creek, CO	09171500	167	1895-99, 1910
Fall Creek near Fall Creek, CO	09172000	33.4	1941-59
Leopard Creek at Noel, CO	09172100	9.03	1955-63
Saltado Creek near Norwood, CO	09172600	--	1976-80
Gurley Ditch near Norwood, CO	09172700	--	1976-80
West Beaver Creek near Norwood, CO	09172800	--	1976-80
Beaver Creek near Norwood, CO	09173000	40.6	1941-61, 1962-67, 1975-81
Horsefly Creek near Sams, CO	09173500	28.8	1942-51
San Miguel River near Nucla, CO	09174000	649	1953-62
Cottonwood Creek near Nucla, CO	09174500	38.8	1942-51
West Naturita Creek at Upper Station near Norwood, CO	09174700	7.31	1976-80
West Naturita Creek near Norwood, CO	09175000	53.0	1940-52, 1975-80
Lilylands Canal near Norwood, CO	09175200	--	1976-80
Maverick Draw near Norwood, CO	09175400	41.3	1976-80
San Miguel River at Naturita, CO	09175500	1,069	1917-29, 1940-81
Tabeguache Creek near Nucla, CO	09176500	16.9	1946-53
San Miguel River at Uravan, CO	09177000	1,499	1954-62, 1973-94
Taylor Creek near Gateway, CO	09177500	15.4	1944-67
Deep Creek near Paradox, CO	09178000	4.31	1944-53
Geyser Creek near Paradox, CO	09178500	--	1944-51
Roc Creek near Uranium CO	09179000	75.8	1944-52
Salt Creek near Gateway, CO	09179200	31.2	1979-85
Dolores River at Gateway, CO	09179500	4,347	1936-54
Vermillion Creek at Ink Springs Ranch, CO	09235450	816	1977-81
Vermillion Creek below Douglas Draw, near Lodore, CO	09235490	918	1995
Bear River near Toponas, CO	09236000	23.0	1952-65, 1966-86
Bear River near Yampa, CO	09236500	41.6	1939-44
Service Creek near Oak Creek, CO	09237800	38.2	1965-73
Oak Creek near Oak Creek, CO	09238000	14.0	1952-57
North Fork Walton Creek near Rabbit Ears Pass, CO	09238300	0.71	1972-75
Fishhook Creek near Rabbit Ears Pass, CO	09238350	6.45	1972-75
Walton Creek near Steamboat Springs, CO	09238500	42.4	1920-22, 1965-73, 1978-87
Fish Creek Tributary above Long Lake near Buffalo Pass, CO	09238700	0.43	1984-86
Long Lake Inlet near Buffalo Pass, CO	09238705	0.71	1987-95
Fish Creek Tributary below Long Lake, near Buffalo Pass, CO	09238710	1.03	1985-95
Middle Fork Fish Creek near Buffalo Pass, CO	09238750	1.37	1985-95
Granite Creek near Buffalo Pass, CO	09238770	2.82	1985-95

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Station name	Station number	Drainage area (sq mi)	Period of record (water years)
Middle Fork Fish Creek tributary, below Fish Creek Reservoir, CO	09238800	4.78	1984-94
Spring Creek near Steamboat Springs, CO	09239400	6.96	1965-72
Elk River at Hinman Park, CO	09240500	61.0	1911-18
South Fork Elk River near Clark, CO	09240800	33.7	1966-73
Elk River above Clark, CO	09240900	122	1987-93
Elk River at Clark, CO	09241000	206	1910-22, 1930-91
Fish Creek near Milner, CO	09244100	34.5	1955-73
Grassy Creek near Mount Harris, CO	09244300	25.8	1958-66
Yampa River near Hayden, CO	09244400	1,430	1965-72
Gibraltar Canal near Hayden, CO	09244405	--	1965-72
Yampa River below Diversion near Hayden, CO	09244410	1,430	1965-86
Sage Creek above Sage Creek Reservoir near Hayden, CO	09244415	4.17	1980-83
Watering Trough Gulch near Hayden, CO	09244460	2.65	1977-81
Hubberson Gulch near Hayden, CO	09244464	8.08	1977-81
Stokes Gulch near Hayden, CO	09244470	13.6	1976-81
Elkhead Creek near Clark, CO	09244500	45.4	1942-44, 1958-73
North Fork Elkhead Creek near Elkhead, CO	09245500	21.0	1910, 1920, 1958-73
Elkhead Creek near Craig, CO	09246500	249	1906, 1909-18
Fortification Creek near Craig, CO	09246900	34.3	1955-60
Fortification Creek near Fortification, CO	09246920	40.0	1984-90
Fortification Creek at Craig, CO	09247000	258	1903-06, 1909-18, 1943-47 1909-16
Yampa River at Craig, CO	09247500	1,730	1901-06
East Fork of Williams Fork near Willow Creek, CO	09248500	96.0	1943-47
East Fork of Williams Fork above Willow Creek, CO	09248600	108	1956-72
East Fork of Williams Fork near Pagoda, CO	09249000	150	1953-71
South Fork of Williams Fork near Pagoda, CO	09249200	46.7	1965-79
Waddle Creek near Pagoda, CO	09249450	5.24	1985-86
Deep Rock Gulch near Hamilton, CO	09249455	3.53	1985-86
Williams Fork at Hamilton, CO	09249500	341	1904-06, 1909-27
Morapos Creek near Hamilton, CO	09249700	13.7	1965-67
Milk Creek near Thornburgh, CO	09250000	65.0	1952-86
Good Spring Creek at Axial, CO	09250400	40.0	1975-78
Wilson Creek above Taylor Creek near Axial, CO	09250507	20.0	1980-92
Taylor Creek at mouth near Axial, CO	09250510	7.22	1975-92
Jubb Creek near Axial, CO	09250610	7.53	1975-81
Morgan Gulch near Axial, CO	09250700	25.6	1980-81
Middle Fork Little Snake River near Battle Creek, CO	09251500	120	1912-22
South Fork Little Snake River near Battle Creek, CO	09252500	46.0	1912-20
Battle Creek near Slater, CO	09253500	285	1942-51
Slater Fork at Baxter Ranch near Slater, CO	09254500	80.0	1911-20, 1922
Willow Creek near Dixon, WY	09258000	24.0	1953-93
Little Snake River above Lily, CO	09259950	--	1950-69
Sand Wash near Sunbeam, CO	09259990	239	1987-91
Yampa River at Deerlodge Park, CO	09260050	7,660	1982-94
North Fork White River below Trappers Lake, CO	09302400	19.5	1956-65
North Fork White River above Ripple Creek near Trappers Lake, CO	09302420	62.5	1965-73
Lost Creek near Buford, CO	09302450	21.5	1964-89
Marvine Creek near Buford, CO	09302500	59.7	1903-06, 1973-84
North Fork White River near Buford, CO	09302800	220	1903-06, 1956-72
South Fork White River at Budge's Resort, CO	09303300	52.3	1975-95
Wagonwheel Creek at Budge's Resort, CO	09303320	7.36	1975-89
Patterson Creek near Budge's Resort, CO	09303340	11.2	1976-77
South Fork White River near Budge's Resort, CO	09303400	128	1976-95
South Fork White River near Buford, CO	09303500	157	1903-06, 1942-47 1967-92
Big Beaver Creek near Buford, CO	09304100	34.1	1955-64
Miller Creek near Meeker, CO	09304150	57.6	1970-79
Coal Creek near Meeker, CO	09304300	25.1	1957-68

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Station name	Station number	Drainage area (sq mi)	Period of record (water years)
White River at Meeker, CO	09304600	808	1978-85
Piceance Creek at Rio Blanco, CO	09305500	8.97	1952-57
Middle Fork Stewart Gulch near Rio Blanco, CO	09306015	24.0	1974-76, 1977-82
Stewart Gulch above West Fork near Rio Blanco, CO	09306022	44.0	1976-85
West Fork Stewart Gulch near Rio Blanco, CO	09306025	14.2	1974-76, 1977-82
West Fork Stewart Gulch at Mouth near Rio Blanco, CO	09306028	15.7	1974-82
Sorghum Gulch near Rio Blanco, CO	09306033	1.22	1974-76, 1977-82
Sorghum Gulch at Mouth near Rio Blanco, CO	09306036	3.62	1974-86
Cottonwood Gulch near Rio Blanco, CO	09306039	1.20	1974-85
Piceance Creek Tributary near Rio Blanco, CO	09306042	1.06	1974-84, 1985-92
Piceance Creek below Gardenhire Gulch near Rio Blanco, CO	09306045	255	1980-82, 1985
Scandard Gulch near Rio Blanco, CO	09306050	6.61	1974-76, 1978-82
Scandard Gulch at Mouth near Rio Blanco, CO	09306052	7.97	1974-85
Willow Creek near Rio Blanco, CO	09306058	48.4	1974-85
Piceance Creek above Hunter Creek near Rio Blanco, CO	09306061	309	1974-87
Black Sulphur Creek near Rio Blanco, CO	09306175	103	1975-83
Horse Draw near Rangely, CO	09306202	1.47	1977-81
Horse Draw at Mouth near Rangely, CO	09306203	2.87	1977-81
White River above Crooked Wash near White River City, CO	09306224	1,821	1982-89
Stake Springs Draw near Rangely, CO	09306230	26.1	1974-77
Corral Gulch below Water Gulch near Rangely, CO	09306235	8.61	1974-89
Dry Fork near Rangely, CO	09306237	2.74	1974-82
Box Elder Gulch near Rangely, CO	09306240	9.21	1974-85
Box Elder Gulch Tributary near Rangely, CO	09306241	2.39	1975-82
Corral Gulch at 84 Ranch, CO	09306244	37.8	1975-77
Yellow Creek Tributary near 84 Ranch, CO	09306246	5.53	1975-77
Duck Creek at Upper Station near 84 Ranch, CO	09306248	39.1	1975-77
Duck Creek near 84 Ranch, CO	09306250	50.0	1975-77
White River above Rangely, CO	09306300	2,773	1972-82
Douglas Creek at Rangely, CO	09306380	425	1977-78, 1995
East Fork San Juan River near Pagosa Springs, CO	09340000	86.9	1935-80
West Fork San Juan River above Borns Lake near Pagosa Springs, CO	09340500	41.2	1937-53
Wolf Creek near Pagosa Springs, CO	09341200	14.0	1968-75
Wolf Creek at Wolf Creek Camp Ground near Pagosa Springs, CO	09341300	18.0	1984-87
Windy Pass Creek near Pagosa Springs, CO	09341350	1.41	1984-87
West Fork San Juan River near Pagosa Springs, CO	09341500	87.9	1935-60, 1984-87
Turkey Creek near Pagosa Springs, CO	09342000	23.0	1937-49
Rio Blanco near Pagosa Springs, CO	09343000	58.0	1935-71
Rito Blanco near Pagosa Springs, CO	09343500	23.3	1935-52
Navajo River above Chromo, CO	09344300	96.4	1956-70
Little Navajo River at Chromo, CO	09345500	21.9	1935-52
Middle Fork Piedra River near Pagosa Springs, CO	09347200	32.2	1969-75
Middle Fork Piedra River near Dyke, CO	09347205	34.1	1978-84
Piedra River at Bridge Ranger Station near Pagosa Springs, CO	09347500	82.3	1936-41, 1946-54
Williams Creek near Bridge Ranger Station near Pagosa Springs, CO	09348500	43.7	1936-41, 1946-49
Weminuche Creek near Bridge Ranger Station near Pagosa Springs, CO	09349000	53.4	1936-41, 1946-49
Piedra River near Piedra, CO	09349500	371	1911-12, 1938-73
Los Pinos River near Bayfield, CO	09353500	270	1927-86
Animas River at Howardsville, CO	09357500	55.9	1935-82
Cement Creek near Silverton, CO	09358500	13.5	1935-37 1946-49
Mineral Creek above Silverton, CO	09358900	11.0	1968-75
Mineral Creek near Silverton, CO	09359000	43.9	1935-49
Lime Creek near Silverton, CO	09359100	33.9	1956-61
Animas River above Tacoma, CO	09359500	348	1945-56
Hermosa Creek near Hermosa, CO	09361000	172	1911, 1912-14, 1919-28, 1939-80

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Station name	Station number	Drainage area (sq mi)	Period of record (water years)
Falls Creek near Durango, CO	09361200	7.18	1959-65
Junction Creek near Durango, CO	09361400	26.3	1959-65
Lightner Creek near Durango, CO	09362000	66.0	1927-49
Florida River near Hermosa, CO	09362900	68.8	1955-63
Florida River near Durango, CO	09363000	97.4	1899, 1901-03, 1910-12, 1917-24, 1926-60
Florida River below Florida Farmers Ditch near Durango, CO	09363050	107	1967-82
Salt Creek near Oxford, CO	09363100	17.7	1956-63, 1967-83
Florida River at Bondad, CO	09363200	221	1956-63, 1967-83
Cherry Creek near Red Mesa, CO	09366000	66.0	1928-50
West Mancos River near Mancos, CO	09368500	39.4	1910-11, 1938-53
East Mancos River near Mancos, CO	09369000	11.9	1937-51
Middle Mancos River near Mancos, CO	09369500	12.1	1937-51
Mancos River near Mancos, CO	09370000	71.5	1921, 1931-38
Mancos River near Cortez, CO	09370800	302	1976-79
Mancos River below Johnson Canyon near Cortez, CO	09370820	320	1979-82
Navajo Wash near Towaoc, CO	09371002	26.3	1986-94
Hartman Draw at Cortez, CO	09371400	34.0	1978-86
McElmo Creek above Alkali Canyon near Cortez, CO	09371420	147	1972-86
Mud Creek near Cortez, CO	09371495	33.6	1978-81
McElmo Creek near Cortez, CO	09371500	230	1926-29, 1940-45, 1950-54, 1982-93
McElmo Creek below Cortez, CO	09371700	283	1972-83

WATER RESOURCES DATA - COLORADO, 1996  
DISCONTINUED SURFACE-WATER-QUALITY STATIONS

The following stations were discontinued as continuous-record surface-water-quality stations. Daily records of temperature, specific conductance, pH, dissolved oxygen or sediment were collected and published for the period of record shown for each station. [--, data unavailable]

Station name	Station number	Drainage area (sq mi)	Type of record	Period of record (water years)
Colorado River at Hot Sulphur Springs, CO	09034500	825	Temp., S.C.	1947-94
Williams Fork near Parshall, CO	09037500	184	Temp., S.C.	1986-87
Williams Fork below Williams Fork Reservoir, CO	09038500	230	Temp., S.C.	1985-87
Muddy Creek at Kremmling, CO	09041500	290	Temp., S.C.	1986-87, 1990-95
West Tenmile Creek at Copper Mountain, CO	09049200	21.0	Sed.	1973-79
Boulder Creek near Dillon, CO	09052500	9.89	Temp., S.C.	1982
Blue River above Green Mountain Reservoir, CO	09053500	511	Temp. S.C.	1986 1986-87
Rock Creek at Crater, CO	09060550	72.6	Temp., S.C.	1986-87
Black Gore Creek near Vail, CO	09066050	19.6	Sed.	1973-79
Gore Creek at Vail, CO	09066250	57.3	Sed.	1973-79
Colorado River near Dotsero, CO	09070500	4,394	Temp., S.C. Sed.	1980-84 1959-61
Colorado River near Glenwood Springs, CO	09071100	4,560	Temp. S.C.	1969-70, 1980-85
Colorado River at Glenwood Springs, CO	09072500	4,558	Temp. Sed.	1954-58 1959-61
Hunter Creek above Midway Creek near Aspen, CO	09073700	6.18	Temp., S.C.	1976-77
Roaring Fork River at Glenwood Springs, CO	09085000	1,451	Temp., S.C. Sed.	1980-84 1959-61
Colorado River below Glenwood Springs, CO	09085100	6,013	Temp., S.C.	1980-84
East Middle Fork Parachute Cr near Rio Blanco, CO	09092850	22.1	Temp., S.C. Sed.	1976-82 1977-82
East Fork Parachute Creek near Rulison, CO	09092970	20.4	Temp. S.C. Sed.	1977-78, 1980-83 1977-83 1978, 1980-83
Parachute Creek near Parachute, CO	09093000	141	Temp., S.C. Sed.	1975-80 1974-75
Parachute Creek at Parachute, CO	09093500	198	Temp., S.C. Sed.	1975-80 1974-82
Colorado River near De Beque, CO	09093700	7,370	Temp., S.C. Sed.	1973-82 1974-76
Roan Creek near De Beque, CO	09095000	321	Temp., S.C. Sed.	1975-80 1975-81
Government Highline Canal near Mack, CO	09095530	--	Temp. S.C.	1973-80 1974-80
Plateau Creek near Cameo, CO	09105000	592	Temp., S.C.	1971-75
Lewis Wash near Grand Junction, CO	09106200	4.72	Temp., S.C.	1973-77
Uncompahgre River at Delta, CO	09149500	1,115	Sed.	1959
Potter Creek near Columbine Pass, CO	09149900	7.10	Temp., S.C.	1981
Potter Creek near Olathe, CO	09149910	26.0	Temp., S.C.	1981
Orchard Mesa Drain at Grand Junction, CO	09152600	3.70	Temp., S.C.	1973-77
Leach Creek at Durham, CO	09152650	24.8	Temp., S.C.	1973-77
Adobe Creek near Fruita, CO	09152900	15.4	Temp., S.C.	1973-80
Big Salt Wash at Fruita, CO	09153270	142	Temp., S.C.	1973-77
Reed Wash near Loma, CO	09153300	29.3	Temp., S.C.	1973-83
West Salt Creek near Carbonera, CO	09153330	95.6	Temp., S.C.	1981-82
West Salt Creek near Mack, CO	09153400	168	Temp., S.C.	1973-84
Badger Wash Observation Res 4-A near Mack, CO	09160000	.02	Temp., S.C.	1981
Badger Wash Observation Res 12 near Mack, CO	09160500	.09	Temp., S.C.	1981-82
Badger Wash Observation Res 2-A near Mack, CO	09161000	.15	Temp., S.C.	1981
Badger Wash near Mack, CO	09163050	6.51	Temp., S.C.	1973-80
East Salt Creek near Mack, CO	09163310	197	Temp., S.C.	1973-82
Mack Wash near Mack, CO	09163340	15.9	Temp. S.C.	1973-82 1974-82
Salt Creek near Mack, CO	09163490	436	Temp., S.C.	1973-83
Disappointment Creek near Dove Creek, CO	09168100	147	Temp., S.C.	1984
Big Gypsum Creek near Slick Rock, CO	09168800	43.9	Temp., S.C.	1981
Dolores River below W. Paradox Cr near Bedrock, CO	09171070	2,144	Temp., S.C.	1986-87
Salt Creek near Gateway, CO	09179200	31.2	Temp., S.C.	1981-85
Dolores River at Gateway, CO	09179500	4,347	Temp.	1949-52
Yampa River near Oak Creek, CO	09237500	227	Sed.	1985-88
Middle Creek near Oak Creek, CO	09243700	23.5	Temp., S.C.	1976-81
Foidel Creek near Oak Creek, CO	09243800	8.61	Temp., S.C.	1976-83, 1986-88

## DISCONTINUED SURFACE-WATER-QUALITY STATIONS (Continued)

The following stations were discontinued as continuous-record surface-water-quality stations. Daily records of temperature, specific conductance, pH, dissolved oxygen or sediment were collected and published for the period of record shown for each station. [-, data unavailable]

Station name	Station number	Drainage area (sq mi)	Type of record	Period of record (water years)
Foidal Creek at Mouth near Oak Creek, CO	09243900	17.5	Temp., S.C.	1976-81
			Sed.	1978-81
Sage Creek above Sage Creek Res. near Hayden, CO	09244415	4.17	Temp., S.C.	1981-83
Watering Trough Gulch near Hayden, CO	09244460	2.65	Temp., S.C.	1979-81
Hubberson Gulch near Hayden, CO	09244464	8.08	Temp., S.C.	1979-81
Stokes Gulch near Hayden, CO	09244464	13.6	Temp., S.C., Sed.	1978-81
Good Spring Creek at Axial, CO	09250400	40.0	Temp.	1975-78
			S.C.	1974-78
Wilson Creek above Taylor Creek near Axial, CO	09250507	20.0	Temp., S.C., Sed.	1980-81
Taylor Creek at Mouth near Axial, CO	09250507	7.22	Temp., S.C.	1976-81
Wilson Creek near Axial, CO	09250600	27.4	Temp.	1975-80
			S.C.	1974-80
			Sed.	1976-80
Jubb Creek near Axial, CO	09250610	7.53	Temp., S.C.	1976-81
Morgan Gulch near Axial, CO	09250700	25.6	Temp., S.C.	1980-81
Little Snake River above Lily, CO	09259950	3,730	Temp., S.C.	1950-69
			Sed.	1958-64
Little Snake River near Lily, CO	09260000	3,730	Temp., S.C.	1975-85
			Sed.	1958-64
Yampa River at Deerlodge Park, CO	09260050	7,660	Temp., S.C.	1977-82
White River above Coal Creek, near Meeker, CO	09304200	648	Temp., S.C.	1978-84
White River near Meeker, CO	09304500	755	Temp., S.C.	1973-74
White River at Meeker, CO	09304600	808	Temp., S.C.	1978-85
White River below Meeker, CO	09304800	1,024	Temp., S.C.	1978-85
Piceance Creek below Rio Blanco, CO	09306007	177	Temp., S.C., Sed.	1974-85
Middle Fork Stewart Gulch near Rio Blanco, CO	09306015	24.0	Temp., S.C.	1976,
				1981
			Sed.	1976
Stewart Gulch above West Fork near Rio Blanco, CO	09306022	44.0	Temp., S.C., Sed.	1974-82
West Fork Stewart Gulch near Rio Blanco, CO	09306025	14.2	Temp.	1974-76,
				1980-81
			S.C.	1975-76,
				1980-81
West Fork Stewart Gulch at Mouth near Rio Blanco, CO	09306028	15.7	Sed.	1974-76
			Temp.	1980-81
			S.C.	1977,
				1980-81
			Sed.	1975-76,
				1980-81
Sorghum Gulch near Rio Blanco, CO	09306033	1.22	Temp., S.C.	1975-76,
				1980
			Sed.	1975-76
Sorghum Gulch at Mouth near Rio Blanco, CO	09306036	3.62	Temp., S.C.	1976,
				1978,
			Sed.	1980
				1975-77,
Cottonwood Gulch near Rio Blanco, CO	09306039	1.20	Temp., S.C.	1976-78,
				1980
			Sed.	1974-77,
				1980
Piceance Creek Tributary near Rio Blanco, CO	09306042	1.06	Temp., S.C.	1974-86
			Sed.	1974-82
Piceance Creek below Gardenhire Gulch near Rio Blanco, CO	09306045	255	Temp., S.C.	1980-81
Scandard Gulch near Rio Blanco, CO	09306050	6.61	Temp., S.C.	1980
			Sed.	1975-76
Scandard Gulch at Mouth near Rio Blanco, CO	09306052	7.97	Temp., S.C.	1976,
				1978,
			Sed.	1980
				1974-76,
Willow Creek near Rio Blanco, CO	09306058	48.4	Temp., S.C.	1974-82
			pH, D.O.	1976-82
			Sed.	1974-82
Piceance Creek above Hunter Creek near Rio Blanco, CO	09306061	309	Temp., S.C., Sed.	1974-85
			pH, D.O.	1974-84
Black Sulphur Creek near Rio Blanco, CO	09306175	103	Temp., S.C., Sed.	1975-81
Piceance Creek below Ryan Gulch near Rio Blanco, CO	09306200	506	Sed.	1972-83

WATER RESOURCES DATA - COLORADO, 1996  
DISCONTINUED SURFACE-WATER-QUALITY STATIONS (Continued)

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Station name	Station number	Drainage area (sq mi)	Type of record	Period of record (water years)
Horse Draw near Rangely, CO	09306202	1.47	Sed.	1980
Horse Draw at Mouth near Rangely, CO	09306203	2.87	Temp., S.C. Sed.	1980 1980-81
Piceance Creek at White River, CO	09306222	652	Temp., S.C., Sed.	1974-83
Stake Springs Draw near Rangely, CO	09306230	26.1	Temp., S.C., Sed.	1977
Corral Gulch below Water Gulch near Rangely, CO	09306235	8.61	Temp., S.C. Sed.	1975-85 1974-82
Dry Fork near Rangely, CO	09306237	2.74	Temp., S.C. Sed.	1977, 1979, 1982 1975, 1977, 1979, 1981-82
Box Elder Gulch near Rangely, CO	09306240	9.21	Temp., S.C. Sed.	1975-85 1975-82
Box Elder Gulch Tributary near Rangely, CO	09306241	2.39	Temp. S.C. Sed.	1976, 1980-81 1976-77, 1981 1975, 1980, 1982
Corral Gulch near Rangely, CO	09306242	31.6	Temp., S.C. Sed.	1975-87 1974-85
Corral Gulch at 84 Ranch, CO	09306244	37.8	Temp., S.C. Sed.	1975-77
Yellow Creek Tributary near 84 Ranch, CO	09306246	5.53	Sed.	1976
Duck Creek at Upper Station near 84 Ranch, CO	09306248	39.1	Sed.	1976
Duck Creek near 84 Ranch, CO	09306250	50.0	Temp., S.C.	1977
Yellow Creek near White River, CO	09306255	262	Temp., S.C. Sed.	1974-82
Windy Pass Creek near Pagosa Springs, CO	09341350	1.41	Sed.	1986
West Fork San Juan River near Pagosa Springs, CO	09341500	87.9	Sed.	1985-87
Rio Blanco near Pagosa Springs, CO	09343000	58.0	Sed.	1961-62
Navajo River above Chromo, CO	09344300	96.4	Sed.	1961-62
Vallecito Creek near Bayfield, CO	09352900	72.1	Temp.	1962-82
Mancos River near Cortez, CO	09370800	302	Temp., S.C.	1976-79
Mancos River below Johnson Canyon near Cortez, CO	09370820	320	Temp., S.C.	1979-82
Mancos River near Towaoc, CO	09371000	526	Sed.	1961
Hartman Draw at Cortez, CO	09371400	34.0	Temp., S.C.	1978-81
McElmo Creek near Cortez, CO	09371500	230	Temp., S.C.	1982-93

Type of record: Temp. (temperature), S.C. (specific conductance), pH (pH), D.O. (dissolved oxygen), Sed. (sediment).

**PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS**

The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

The reports listed below are for sale by the U.S. Geological Survey, Branch of Information Services, Box 25286, Federal Center, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

- 1-D1. *Water temperature--influential factors, field measurement, and data presentation*, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.
- 1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.
- 2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.
- 2-D2. *Application of seismic-refraction techniques to hydrologic studies*, by F. P. Haeni: USGS--TWRI Book 2, Chapter D2. 1988. 86 pages.
- 2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L.M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.
- 2-E2. *Borehole geophysics applied to ground-water investigations*, by W. S. Keys: USGS--TWRI Book 2, Chapter E2. 1990. 150 pages.
- 2-F1. *Application of drilling, coring, and sampling techniques to test holes and wells*, by Eugene Shuter and W. E. Teasdale: USGS--TWRI Book 2, Chapter F1. 1989. 97 pages.
- 3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.
- 3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.
- 3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.
- 3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS-TWRI Book 3, Chapter A4. 1967. 44 pages.
- 3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.
- 3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.
- 3-A7. *Stage measurement at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.
- 3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.
- 3-A9. *Measurement of time of travel in streams by dye tracing*, by F. A. Kilpatrick and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1989. 27 pages.
- 3-A10. *Discharge ratings at gaging stations*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.
- 3-A11. *Measurement of discharge by the moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.
- 3-A12. *Fluorometric procedures for dye tracing*, Revised, by J. F. Wilson, Jr., E. D. Cobb, and F. A. Kilpatrick: USGS- -TWRI Book 3, Chapter A12. 1986. 34 pages.

**PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS**

- 3-A13. *Computation of continuous records of streamflow*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.
- 3-A14. *Use of flumes in measuring discharge*, by F. A. Kilpatrick and V. R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 pages.
- 3-A15. *Computation of water-surface profiles in open channels*, by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.
- 3-A16. *Measurement of discharge using tracers*, by F. A. Kilpatrick and E. D. Cobb: USGS--TWRI Book 3, Chapter A16. 1985. 52 pages.
- 3-A17. *Acoustic velocity meter systems*, by Antonius Laenen: USGS--TWRI Book 3, Chapter A17. 1985. 38 pages.
- 3-A18. *Determination of stream reaeration coefficients by use of tracers*, by F. A. Kilpatrick, R. E. Rathbun, Nobuhiro Yotsukura, G. W. Parker, and L. L. DeLong: USGS--TWRI Book 3, Chapter A18. 1989. 52 pages.
- 3-A19. *Levels at streamflow gaging stations*, by E.J. Kennedy: USGS--TWRI Book 3, Chapter A19. 1990. 31 pages.
- 3-A20. *Simulation of soluble waste transport and buildup in surface waters using tracers*, by F. A. Kilpatrick: USGS--TWRI Book 3, Chapter A20. 1993. 38 pages.
- 3-A21 *Stream-gaging cableways*, by C. Russell Wagner: USGS--TWRI Book 3, Chapter A21. 1995. 56 pages.
- 3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.
- 3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G. D. Bennett: USGS-- TWRI Book 3, Chapter B2. 1976. 172 pages.
- 3-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J. E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.
- 3-B4. *Regression modeling of ground-water flow*, by R. L. Cooley and R. L. Naff: USGS--TWRI Book 3, Chapter B4. 1990. 232 pages.
- 3-B4. *Supplement 1. Regression modeling of ground-water flow - Modifications to the computer code for nonlinear regression solution of steady-state ground-water flow problems*, by R. L. Cooley: USGS--TWRI Book 3, Chapter B4. 1993. 8 pages.
- 3-B5. *Definition of boundary and initial conditions in the analysis of saturated ground-water flow systems--An introduction*, by O. L. Franke, T. E. Reilly, and G. D. Bennett: USGS--TWRI Book 3, Chapter B5. 1987. 15 pages.
- 3-B6. *The principle of superposition and its application in ground-water hydraulics*, by T. E. Reilly, O. L. Franke, and G. D. Bennett: USGS--TWRI Book 3, Chapter B6. 1987. 28 pages.
- 3-B7. *Analytical solutions for one-, two-, and three-dimensional solute transport in ground-water systems with uniform flow*, by E. J. Wexler: USGS--TWRI Book 3, Chapter B7. 1992. 190 pages.
- 3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.
- 3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.
- 3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.
- 4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.
- 4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.
- 4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.
- 4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.
- 4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.
- 4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.

**PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS**

- 5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M.J. Fishman and L. C. Friedman, editors: USGS--TWRI Book 5, Chapter A1. 1989. 545 pages.
- 5-A2. *Determination of minor elements in water by emission spectroscopy*, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.
- 5-A3. *Methods for the determination of organic substances in water and fluvial sediments*, edited by R. L. Wershaw, M. J. Fishman, R. R. Grabbe, and L. E. Lowe: USGS--TWRI Book 5, Chapter A3. 1987. 80 pages.
- 5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, by L. J. Britton and P. E. Greeson, editors: USGS--TWRI Book 5, Chapter A4. 1989. 363 pages.
- 5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L.L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.
- 5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments*, by L. C. Friedman and D. E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 pages.
- 5-C1. *Laboratory theory and methods for sediment analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.
- 6-A1. *A modular three-dimensional finite-difference ground-water flow model*, by M. G. McDonald and A. W. Harbaugh: USGS--TWRI Book 6, Chapter A1. 1988. 586 pages.
- 6-A2. *Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model*, by S. A. Leake and D. E. Prudic: USGS--TWRI Book 6, Chapter A2. 1991. 68 pages.
- 6-A3. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 1: Model Description and User's Manual*, by L. J. Torak: USGS--TWRI Book 6, Chapter A3. 1993. 136 pages
- 6-A4. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 2: Derivation of finite-element equations and comparisons with analytical solutions*, by R. L. Cooley: USGS--TWRI Book 6, Chapter A4. 1992. 108 pages.
- 6-A5. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 3: Design philosophy and programming details*, by L. J. Torak: USGS--TWRI Book 6, Chapter A5, 1993. 243 pages.
- 6-A6. A coupled surface-water and ground-water flow model (MODBRANCH) for simulation of stream-aquifer interaction, by Eric D. Swain and Eliezer J. Wexler. 1995. 125 pages.
- 7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.
- 7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.
- 7-C3. *A model for simulation of flow in singular and interconnected channels*, by R. W. Schaffranek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.
- 8-A1. *Methods of measuring water levels in deep wells*, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.
- 8-A2. *Installation and service manual for U.S. Geological Survey manometers*, by J. D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.
- 8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

# HYDROLOGIC-DATA STATION RECORDS

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## COLORADO RIVER MAIN STEM

### 09010500 COLORADO RIVER BELOW BAKER GULCH, NEAR GRAND LAKE, CO

LOCATION.--Lat 40°19'33", long 105°51'22", in NE<sup>1/4</sup>NW<sup>1/4</sup> sec.12, T.4 N., R.76 W., Grand County, Hydrologic Unit 14010001, on left bank 500 ft downstream from Baker Gulch, 1.0 mi upstream from Bowen Gulch, and 5.5 mi northwest of town of Grand Lake.

DRAINAGE AREA.--53.4 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1953 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 8,750 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Transmountain diversion upstream from station by Grand River ditch (see elsewhere in this report).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	e28	e20	e8.6	e8.9	e9.1	e15	36	285	203	33	17
2	34	e23	e19	e8.7	e8.8	e9.1	e16	36	295	194	34	17
3	30	e21	e19	e9.4	e8.6	e8.9	e17	42	327	198	42	17
4	33	e23	e18	e9.0	e8.5	e9.1	e17	58	378	180	32	17
5	29	e24	e15	e8.4	e8.4	e9.2	e17	90	473	180	28	18
6	32	e24	e13	e7.6	e8.2	e9.6	e17	138	542	176	25	23
7	33	e25	e12	e8.2	e8.4	e10	e19	172	535	176	24	20
8	34	e25	e11	e8.6	e8.7	e10	e22	218	544	150	23	17
9	31	e26	e10	e8.8	e8.8	e10	e27	216	557	126	23	16
10	30	e26	e10	e9.2	e8.7	e10	e30	205	568	116	22	15
11	31	e26	e11	e8.8	e8.5	e10	e29	227	564	106	21	16
12	37	e24	e11	e8.7	e8.4	e9.6	e27	294	523	97	21	19
13	41	e27	e11	e8.7	e8.5	e9.4	e26	344	481	92	21	26
14	31	e27	e10	e8.8	e8.8	e9.5	e26	370	479	86	21	24
15	32	e24	e10	e8.8	e8.4	e9.8	e25	417	489	82	22	22
16	31	e24	e11	e8.9	e8.8	e9.9	e25	514	476	83	21	19
17	29	e24	e11	e8.7	e8.5	e10	e25	624	460	82	20	19
18	28	e23	e10	e8.8	e8.4	e10	e25	594	419	82	20	20
19	27	e23	e10	e8.8	e8.4	e9.9	e26	652	410	71	22	24
20	22	e22	e9.9	e8.9	e8.4	e10	e26	593	402	62	23	27
21	27	e22	e9.3	e9.0	e8.5	e11	e25	462	439	56	24	25
22	27	e21	e8.8	e9.1	e8.8	e12	e25	450	479	50	24	26
23	21	e20	e8.4	e8.9	e9.3	e12	25	468	394	46	24	32
24	e27	e19	e8.9	e8.8	e9.0	e12	30	437	354	43	21	50
25	e29	e18	e9.4	e8.9	e8.7	e12	48	438	329	41	19	52
26	e31	e19	e9.5	e8.8	e8.9	e13	63	457	303	40	18	47
27	e29	e17	e9.4	e8.7	e9.1	e14	49	390	283	36	17	38
28	e28	e16	e9.3	e8.9	e9.2	e14	50	338	263	34	19	39
29	e26	e18	e9.1	e9.0	e9.2	e14	49	313	229	54	23	43
30	e25	e20	e8.9	e9.0	--	e15	39	305	214	51	18	45
31	e26	--	e8.8	e8.9	--	e15	--	294	--	38	17	--
TOTAL	929	679	351.7	272.4	251.8	337.1	860	10192	12494	3031	722	790
MEAN	30.0	22.6	11.3	8.79	8.68	10.9	28.7	329	416	97.8	23.3	26.3
MAX	41	28	20	9.4	9.3	15	63	652	568	203	42	52
MIN	21	16	8.4	7.6	8.2	8.9	15	36	214	34	17	15
AC-FT	1840	1350	698	540	499	669	1710	20220	24780	6010	1430	1570

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1996, BY WATER YEAR (WY)

MEAN	23.6	15.0	9.70	7.77	7.05	7.48	27.6	167	317	115	32.9	26.0
MAX	83.7	37.2	17.4	12.8	10.6	11.9	74.5	329	559	425	104	75.5
(WY)	1962	1962	1962	1985	1984	1972	1962	1996	1995	1983	1983	1961
MIN	9.25	7.43	4.56	3.91	3.90	4.57	9.11	65.7	69.8	27.3	11.1	11.8

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1953 - 1996
ANNUAL TOTAL	36693.7	30910.0	
ANNUAL MEAN	101	84.5	63.4
HIGHEST ANNUAL MEAN			109
LOWEST ANNUAL MEAN			26.3
HIGHEST DAILY MEAN	a789	Jun 17	916
LOWEST DAILY MEAN	e7.0	Jan 1	3.0
ANNUAL SEVEN-DAY MINIMUM	7.2	Jan 1	3.5
INSTANTANEOUS PEAK FLOW		668 May 19	976 Jun 30 1957
INSTANTANEOUS PEAK STAGE		6.97 May 19	b7.19 Jun 30 1957
ANNUAL RUNOFF (AC-FT)	72780	61310	45900
10 PERCENT EXCEEDS	459	340	191
50 PERCENT EXCEEDS	23	23	17
90 PERCENT EXCEEDS	7.7	8.8	6.4

e-Estimated.

a-Also occurred on Jun 18.

b-Maximum gage height, 7.32 ft, Jun 10, 1995, but may have been higher during period of estimated record, Jun 13-20, 1995.

## COLORADO RIVER MAIN STEM

**09010500 COLORADO RIVER BELOW BAKER GULCH NEAR GRAND LAKE, CO--Continued**  
**(National Water-Quality Assessment Program station)**
**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--December 1994 to current year.

REMARKS.--Upper Colorado River Basin National Water Quality Assessment Program station (NAWQA).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC COND. DUCT- PER SECOND	PH (STAND- ANCE) (US/CM)	TEMPER- ATURE ARD WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L) CACO3	CALCIUM DIS- SOLVED AS (MG/L) AS CA)	MAGNE- SIUM, DIS- SOLVED AS (MG/L) AS MG)	SODIUM, DIS- SOLVED AS (MG/L) AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L) AS K)	
OCT 26...	1135	36		75	7.2	0.0	10.4	29	8.4	2.0	1.6	0.1	0.8
NOV 22...	1150	22		73	7.4	0.5	10.6	32	9.2	2.1	2.0	0.2	0.8
JAN 16...	1515	8.9		78	6.8	0.0	9.3	32	8.9	2.4	2.1	0.2	0.8
FEB 27...	1300	9.2		80	6.8	0.5	9.2	33	9.1	2.4	1.9	0.1	0.9
MAR 19...	1440	9.9		78	6.9	0.0	10.0	33	9.2	2.4	2.0	0.2	0.9
	28...	1155	14	79	6.9	2.5	--	33	9.3	2.3	2.0	0.2	0.8
APR 15...	1430	26		75	6.9	0.0	8.8	30	8.4	2.2	1.9	0.2	2.0
MAY 13...	1305	303		54	7.1	6.0	8.9	20	5.7	1.4	1.4	0.1	0.9
	21...	1115	437	58	6.9	3.5	10.6	19	5.5	1.3	1.3	0.1	0.7
JUN 18...	1030	398		42	7.2	5.0	10.4	17	5.0	1.2	1.1	0.1	0.6
	26...	1320	299	45	7.3	10.5	8.9	18	5.1	1.2	1.1	0.1	0.6
JUL 16...	1045	79		59	7.7	11.0	8.1	24	6.8	1.7	1.4	0.1	0.6
	24...	1415	48	63	7.6	15.5	7.7	24	6.9	1.7	2.2	0.2	3.5
AUG 19...	1250	22		73	7.8	13.0	7.5	29	8.2	2.0	1.8	0.1	0.9
SEP 10...	1020	16		72	7.7	9.5	8.7	29	8.5	2.0	1.8	0.1	0.9
DATE		BICAR- <sup>a</sup> BONATE WATER DIS IT FIELD (MG/L AS HCO3)	ALKA- <sup>b</sup> LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (TONS (MG/L))	SOLIDS, DIS- SOLVED (TONS (MG/L))	SOLIDS, DIS- SOLVED PER AC-FT)	NITRO- GEN, DIS- SOLVED (MG/L AS N)		
OCT 26...	30	24	5.6	0.3	0.3	7.0	39	41	0.05	3.79	<0.01		
NOV 22...	33	27	6.2	0.2	0.3	7.6	46	45	0.06	2.72	<0.01		
JAN 16...	32	26	5.2	0.1	0.3	9.4	43	46	0.06	1.03	<0.01		
FEB 27...	35	29	6.5	0.1	0.3	9.4	48	48	0.06	1.19	<0.01		
MAR 19...	35	29	6.4	0.2	0.3	9.4	51	49	0.07	1.36	<0.01		
	28...	36	30	6.3	<0.1	0.3	9.3	50	--	--	--	<0.01	
APR 15...	33	27	6.0	0.2	0.2	8.9	50	47	0.07	3.44	<0.01		
MAY 13...	20	17	4.1	0.2	0.2	6.8	38	31	0.05	31.1	<0.01		
	21...	18	15	3.9	0.2	0.3	7.2	42	30	0.06	49.6	<0.01	
JUN 18...	16	13	2.7	0.1	0.2	6.3	34	25	0.05	36.5	<0.01		
	26...	19	16	3.2	<0.1	0.2	5.9	30	--	--	--	<0.01	
JUL 16...	23	19	4.1	<0.1	0.3	6.7	44	--	--	--	0.01		
	24...	32	26	4.2	<0.1	0.3	7.0	46	--	--	--	0.01	
AUG 19...	34	28	4.9	<0.1	0.3	7.8	42	--	--	--	<0.01		
SEP 10...	34	28	5.9	<0.1	0.3	7.7	47	--	--	--	<0.01		

a-Field dissolved bicarbonate, determined by incremental titration method.

b-Field total dissolved alkalinity, determined by incremental titration method.



## COLORADO RIVER MAIN STEM

**09010500 COLORADO RIVER BELOW BAKER GULCH NEAR GRAND LAKE, CO--Continued**  
**(National Water-Quality Assessment Program station)**

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- C MENT, DIS- CHARGE, SUS- SUS- PENDED (MG/L)	SEDI- C MENT, DIS- CHARGE, SUS- SUS- PENDED (T/DAY)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- C MENT, DIS- CHARGE, SUS- SUS- PENDED (MG/L)	SEDI- C MENT, DIS- CHARGE, SUS- SUS- PENDED (T/DAY)
OCT 26...	1135	36	1	0.10	MAY 13...	1305	303	27	22
NOV 22...	1150	22	2	0.12	21...	1050	437	21	25
JAN 16...	1515	8.9	1	0.02	21...	1115	437	20	23
FEB 27...	1300	9.2	4	0.10	JUN 18...	1030	398	8	8.3
MAR 19...	1440	9.9	2	0.05	26...	1245	299	7	5.7
28...	1155	14	2	0.08	26...	1320	299	5	4.0
APR 15...	1430	26	10	0.69	JUL 16...	1045	79	1	0.24
					24...	1415	48	3	0.39
					AUG 19...	1250	22	1	0.06
					SEP 10...	1020	16	1	0.02

c-Suspended-sediment concentration determined from a subsample split of a composite sample.

**09013000 ALVA B. ADAMS TUNNEL AT EAST PORTAL, NEAR ESTES PARK, CO**

LOCATION.--Lat 40°19'40", long 105°34'39", in SW<sup>1/4</sup>NW<sup>1/4</sup> sec.9, T.4 N., R.73 W., Larimer County, Hydrologic Unit 10190006, on right bank at upstream end of Aspen Creek siphon, 700 ft downstream from east portal, and 4.5 mi southwest of Estes Park.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--October 1946 to current year (monthly discharge only for August and September 1947).

GAGE.--Water-stage recorder with satellite telemetry, and Parshall flume. Elevation of gage is 8,250 ft above sea level, from topographic map. Prior to Oct. 1, 1950, water-stage recorder and Parshall flume at different datum. Oct. 1, 1950 to Sept. 30, 1952, water-stage recorder and Cippoletti weir at different datum.

REMARKS.--No estimated daily discharges. Records good. This is a transmountain diversion from Grand Lake and Shadow Mountain Lake for power and irrigation developments in the South Platte River basin as part of the Colorado-Big Thompson project. Diversion point is at west portal near town of Grand Lake, 13.35 mi west of east portal.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--50 years, 285 ft<sup>3</sup>/s; 206,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 592 ft<sup>3</sup>/s, June 30, 1962; no flow at times in most years.

DISCHARGE, CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	281	201	214	340	111	103	501	445	349	549	354
2	68	280	201	228	347	109	94	508	440	552	353	336
3	96	282	200	228	348	112	96	510	502	556	351	350
4	189	275	186	220	207	102	97	550	537	557	342	531
5	179	271	403	206	198	101	78	521	519	551	390	559
6	174	266	408	204	202	98	86	559	454	554	366	561
7	177	163	180	202	218	102	69	450	464	551	392	538
8	159	193	406	201	211	101	94	537	542	548	350	535
9	174	199	406	200	204	104	97	513	542	549	351	545
10	156	209	402	200	211	100	97	494	465	551	351	557
11	175	207	397	201	236	107	102	508	409	555	469	555
12	180	198	418	214	203	99	104	551	496	550	223	555
13	175	198	218	215	203	80	104	551	514	547	348	509
14	159	197	.85	216	203	79	105	545	543	555	345	495
15	160	197	4.0	216	203	102	109	464	545	514	353	503
16	175	198	3.8	214	203	108	106	408	511	499	353	224
17	175	197	3.7	206	203	106	105	548	493	503	348	49
18	172	197	3.8	207	217	111	105	544	522	540	344	48
19	181	197	123	206	201	111	103	543	480	507	347	68
20	191	197	308	215	201	112	106	519	439	512	344	101
21	194	197	263	222	201	105	106	534	430	522	344	46
22	227	198	228	220	201	106	107	549	311	522	348	44
23	170	197	204	213	202	103	104	545	496	521	349	48
24	180	198	205	212	201	104	219	550	541	514	349	34
25	178	197	205	212	208	98	107	550	443	503	348	.10
26	182	197	292	213	212	104	397	507	333	504	348	.06
27	181	204	197	213	213	98	402	513	303	505	349	.04
28	178	202	204	213	190	102	402	546	291	511	349	.00
29	178	201	204	215	106	102	402	541	348	514	392	.00
30	179	201	205	217	---	108	403	529	345	473	350	6.7
31	182	---	203	266	---	106	---	459	---	488	349	---
TOTAL	5209	6394	6883.15	6629	6293	3191	4609	16147	13703	16177	11144	8151.90
MEAN	168	213	222	214	217	103	154	521	457	522	359	272
MAX	227	282	418	266	348	112	403	559	545	557	549	561
MIN	65	163	.85	200	106	79	69	408	291	349	223	.00
AC-FT	10330	12680	13650	13150	12480	6330	9140	32030	27180	32090	22100	16170

CAL YR 1995 TOTAL 98997.95 MEAN 271 MAX 547 MIN .00 AC-FT 196400  
WTR YR 1996 TOTAL 104531.05 MEAN 286 MAX 561 MIN .00 AC-FT 207300

## GRAND LAKE OUTLET BASIN

**09013000 ALVA B. ADAMS TUNNEL AT EAST PORTAL, NEAR ESTES PARK, CO--Continued**  
**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--September 1970 to current year.

REMARKS.--Field data collected prior to 1974 water year are available in district office.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L) CACO3	CALCIUM AS CACO3	MAGNE- SIUM, DIS- SOLVED (MG/L) AS MG	SODIUM, DIS- SOLVED (MG/L) AS NA	
NOV 27...	1346	216		42	7.7	4.0	8.7	16	5.0	0.95	1.7
FEB 12...	1039	204		74	8.0	2.0	8.8	21	6.5	1.2	2.0
MAR 25...	1314	206		57	7.8	2.0	8.5	22	6.7	1.3	2.1
MAY 20...	1106	--		44	7.6	5.0	9.2	18	5.4	0.97	1.7
JUL 08...	1305	551		20	7.0	14.0	8.4	7	2.1	0.40	0.8
SEP 17...	1041	195		49	7.8	13.0	7.6	19	5.7	1.1	1.8
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DATE	RATIO	SODIUM AD- SORP- TION SOLVED (MG/L AS K)	POTAS- SIUM, LAB SOLVED (MG/L AS CACO3)	ALKA- LINITY SOLVED (MG/L AS SO4)	SULFATE DIS- SOLVED (MG/L AS CL)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L AS P)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (TONS PER AC-FT)	
NOV 27...	0.2	0.5	18		1.3	0.4	0.1	5.4	32	27	0.04
FEB 12...	0.2	0.7	24		2.2	0.4	0.1	6.1	30	34	0.04
MAR 25...	0.2	0.7	24		2.6	0.4	0.2	6.3	40	35	0.05
MAY 20...	0.2	0.6	18		2.2	0.4	0.1	5.9	30	28	0.04
JUL 08...	0.1	0.2	8.0		1.2	0.3	0.1	3.6	24	14	0.03
SEP 17...	0.2	0.6	21		2.6	0.3	0.1	4.8	28	30	0.04
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DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	
NOV 27...	18.7	<0.01	0.08	<0.02	--	<0.2	<0.01	<0.01	<0.01	<0.01	
FEB 12...	16.5	<0.01	0.08	<0.02	--	<0.2	<0.01	<0.01	<0.01	<0.01	
MAR 25...	22.2	<0.01	0.09	<0.02	0.2	0.2	0.02	0.02	0.02	0.02	
MAY 20...	--	<0.01	0.07	<0.02	0.2	0.2	0.03	<0.01	<0.01	<0.01	
JUL 08...	35.7	<0.01	<0.05	0.04	--	<0.2	<0.01	<0.01	<0.01	<0.01	
SEP 17...	14.7	<0.01	0.10	0.02	0.38	0.4	0.04	<0.01	<0.01	<0.01	

## GRAND LAKE OUTLET BASIN

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## 09013000 ALVA B. ADAMS TUNNEL AT EAST PORTAL, NEAR ESTES PARK, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)
NOV 27...	--	--	6	<0.5	20	<1	<5	<3	<10	19
FEB 12...	--	--	7	<0.5	<10	<1	<5	<3	<10	13
MAR 25...	--	--	7	<0.5	<10	<1	<5	<3	<10	29
MAY 20...	--	--	6	<0.5	<10	<1	<5	<3	<10	50
JUL 08...	--	--	4	<0.5	<4	<1	<5	<3	<10	32
SEP 17...	3.2	1.1	6	<0.5	<4	<1	<5	<3	<10	25
DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 27...	<10	<4	2	--	<10	<10	<1	30	<6	<3
FEB 12...	<10	<4	<1	--	<10	<10	<1	40	<6	<3
MAR 25...	<10	<4	<1	--	10	<10	<1	37	<6	<3
MAY 20...	<10	<4	2	--	<10	<10	<1	31	<6	7
JUL 08...	<10	<4	<1	<10	<10	<10	<1	11	<6	<3
SEP 17...	<10	<4	<1	10	<10	<10	<1	35	<6	<3

**09014500 SHADOW MOUNTAIN LAKE NEAR GRAND LAKE, CO**

LOCATION.--Lat  $40^{\circ}12'26''$ , long  $105^{\circ}50'27''$ , in SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec.19, T.3 N., R.75 W., Grand County, Hydrologic Unit 14010001, in gate house on left side of outlet gates near center of Shadow Mountain Dam on Colorado River, 1.0 mi upstream from Pole Creek and 3.2 mi south of town of Grand Lake.

DRAINAGE AREA.--185 mi<sup>2</sup>.

**RESERVOIR ELEVATIONS AND CONTENTS RECORDS**

PERIOD OF RECORD.--April 1947 to current year. Prior to October 1960, published as Shadow Mountain Reservoir near Grand Lake.

REVISED RECORDS.--WSP 1149: 1947-48. WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is above sea level, (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above sea level. Supplementary water-stage recorder on Grand Lake, 800 ft north of outlet gates and 2.9 mi north of Shadow Mountain Dam.

REMARKS.--Lake is formed by earth and rockfill dam and dikes. Storage began in April 1947. Capacity, 17,860 acre-ft, including usable capacity of Grand Lake above elevation 8,365 ft, between elevation 8,347 ft, sill of outlet gate, and 8,367 ft, maximum water surface. Dead storage in Shadow Mountain Lake, 506 acre-ft. Dead storage in Grand Lake not determined. Shadow Mountain Lake is used for stabilization of water level in Grand Lake. Usable capacity for diversion through Alva B. Adams tunnel, 3,660 acre-ft between elevations 8,365 ft, crest of tunnel inlet and 8,367 ft, maximum water surface. Figures given represent usable contents as determined from summation of individual contents of Grand Lake and Shadow Mountain Lake. Transmountain diversion from Colorado River basin, including water pumped from Lake Granby, is effected through Grand Lake and Alva B. Adams tunnel, for power and irrigation in South Platte River basin.

COOPERATION.--Records provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 17,920 acre-ft, May 22, 1955, elevation, 8,367.03 ft; minimum since appreciable storage was first attained, 2,630 acre-ft, May 14, 1948.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 17,510 acre-ft, Sept. 28, elevation, 8,366.83 ft; minimum, 16,770 acre-ft, June 22, elevation, 8,366.39 ft.

## MONTHEND ELEVATION AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30. . . . .	8,366.70	17,300	-
Oct. 31. . . . .	8,366.77	17,380	+80
Nov. 30. . . . .	8,366.76	17,390	+10
Dec. 31. . . . .	8,366.72	17,310	-80
CAL YR 1995. . . . .			+30
Jan. 31. . . . .	8,366.72	17,300	-10
Feb. 29. . . . .	8,366.72	17,310	+10
Mar. 31. . . . .	8,366.70	17,280	-30
Apr. 30. . . . .	8,366.72	17,280	0
May 31. . . . .	8,366.53	16,980	-300
June 30. . . . .	8,366.53	16,960	-20
July 31. . . . .	8,366.77	17,360	+400
Aug. 31. . . . .	8,366.68	17,200	-160
Sept. 30. . . . .	8,366.80	17,460	+260
WTR YR 1996. . . . .			+160

## COLORADO RIVER BASIN

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**09014500 SHADOW MOUNTAIN LAKE NEAR GRAND LAKE, CO--Continued**  
**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--May 1989 to current year.

REMARKS.--Samples were collected near-surface and near-bottom, near dam.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
<b>OCT</b>						
17...	1510	0.1	56	7.5	8.5	7.4
17...	1511	5.0	56	7.5	8.0	7.4
17...	1512	10	56	7.5	7.5	7.0
17...	1513	15	56	7.4	7.5	6.9
17...	1514	20	56	7.4	7.5	6.8
17...	1515	25	56	7.4	7.5	6.4
<b>MAY</b>						
31...	1030	0.1	41	7.8	10.5	8.5
31...	1031	5.0	41	7.7	10.5	8.4
31...	1032	10	40	7.6	8.5	8.4
31...	1033	15	40	7.5	7.0	8.3
31...	1034	20	39	7.5	6.5	8.1
31...	1035	25	39	7.4	6.5	7.9
<b>JUN</b>						
26...	0915	0.1	33	7.7	15.0	9.1
26...	0916	5.0	34	7.8	14.5	12.2
26...	0917	10	33	7.7	13.0	8.7
26...	0918	15	34	7.5	11.5	8.5
26...	0919	20	34	7.4	11.0	8.3
26...	0920	25	36	7.2	9.5	6.7
<b>JUL</b>						
24...	0915	0.1	48	7.6	16.5	7.6
24...	0916	5.0	51	7.3	13.0	7.4
24...	0917	10	51	7.2	11.5	7.1
24...	0918	15	51	7.1	11.5	7.1
24...	0919	20	51	7.1	11.0	7.1
24...	0920	25	52	7.0	11.0	6.7
<b>AUG</b>						
07...	0920	0.1	54	7.3	13.5	7.2
07...	0921	5.0	54	7.2	11.5	7.5
07...	0922	10	54	7.2	11.0	7.3
07...	0923	15	54	7.1	11.0	7.0
07...	0924	20	54	7.1	10.5	6.9
07...	0925	25	54	7.0	10.5	6.7
<b>SEP</b>						
11...	0924	0.1	51	7.0	10.0	5.9
11...	0925	5.0	51	6.9	9.5	5.9
11...	0926	10	51	6.9	9.5	5.7
11...	0927	15	51	6.9	9.5	5.7
11...	0928	20	51	6.9	9.0	5.6
11...	0929	25	51	6.9	9.0	5.6

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TRANS-PAR-ENCY (SECCHI DISK)	(IN)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, (0.7 MG/L)	HARD-NESS (TOTAL UM-MF (MG/L))	CALCIUM (DIS-SOLVED (MG/L) AS CACO3)
<b>OCT</b>											
17...	1530	0.1	56	7.5	8.5	85.0		7.4	<1	--	--
17...	1545	25	56	7.4	7.5	--		6.4	--	24	7.3
<b>MAY</b>											
31...	1045	0.1	41	7.8	10.5	69.0		8.5	<1	18	5.4
31...	1100	25	39	7.4	6.5	--		7.9	--	18	5.2
<b>JUN</b>											
26...	0930	0.1	33	7.7	15.0	95.0		9.1	--	13	3.8
26...	0945	25	36	7.2	9.5	--		6.7	--	15	4.4
<b>JUL</b>											
24...	0930	0.1	48	7.6	16.5	120		7.6	<1	19	5.7
24...	0945	25	52	7.0	11.0	--		6.7	--	20	6.2
<b>AUG</b>											
07...	0930	0.1	54	7.3	13.5	109		7.2	<1	20	6.2
07...	0945	25	54	7.0	10.5	--		6.7	--	21	6.3
<b>SEP</b>											
11...	0930	0.1	51	7.0	10.0	115		5.9	<1	22	6.8
11...	0945	25	51	6.9	9.0	--		5.6	--	22	6.8

## COLORADO RIVER BASIN

## 09014500 SHADOW MOUNTAIN LAKE NEAR GRAND LAKE, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORPTION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT										
17...	--	--	--	--	--	--	--	--	6.9	40
17...	1.4	2.1	0.2	0.7	26	2.7	0.4	0.1	7.0	36
MAY										
31...	1.2	1.7	0.2	0.8	19	3.3	0.3	0.2	6.8	54
31...	1.2	1.6	0.2	0.7	18	3.3	0.3	0.2	7.5	60
JUN										
26...	0.9	1.2	0.1	0.5	14	2.1	0.2	0.1	5.0	24
26...	1.0	1.2	0.1	0.6	15	2.3	0.1	0.1	6.0	32
JUL										
24...	1.1	1.7	0.2	0.6	21	2.7	0.3	0.1	5.2	16
24...	1.2	1.9	0.2	0.6	22	2.8	0.4	0.1	5.3	26
AUG										
07...	1.2	1.8	0.2	0.6	23	2.8	0.5	0.1	4.9	46
07...	1.2	1.9	0.2	0.7	23	2.8	0.4	0.1	5.0	56
SEP										
11...	1.2	2.0	0.2	0.7	24	2.6	0.4	0.1	5.4	34
11...	1.2	2.0	0.2	0.7	24	2.6	0.4	0.1	5.4	34

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CHLOR-A PHYTO- PLANK-TON SOLVED (MG/L AS P)	CHLOR-B PHYTO- PLANK-TON CHROMO FLUOROM (UG/L)	
OCT										
17...	--	<0.01	<0.05	<0.02	0.30	<0.01	<0.01	<0.01	8.0	0.4
17...	37	<0.01	<0.05	<0.02	0.30	<0.01	<0.01	<0.01	--	--
MAY										
31...	32	<0.01	0.07	0.02	0.30	0.02	0.01	<0.01	0.3	<0.1
31...	31	<0.01	0.07	0.02	0.30	0.01	0.02	<0.01	--	--
JUN										
26...	22	<0.01	<0.05	<0.02	<0.20	<0.01	<0.01	<0.01	0.8	<0.1
26...	25	<0.01	<0.05	<0.02	<0.20	<0.01	<0.01	<0.01	--	--
JUL										
24...	30	0.01	0.07	0.03	0.40	0.01	<0.01	<0.01	1.9	<0.1
24...	32	<0.01	0.09	0.04	0.20	<0.01	<0.01	<0.01	--	--
AUG										
07...	32	<0.01	0.06	0.03	0.20	<0.01	<0.01	0.01	1.6	<0.1
07...	33	<0.01	0.07	0.02	<0.20	<0.01	<0.01	0.01	--	--
SEP										
11...	34	<0.01	0.10	<0.02	0.20	0.02	<0.01	<0.01	2.5	<0.1
11...	34	<0.01	0.08	0.02	0.20	<0.01	<0.01	<0.01	--	--

DATE	TIME	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM, DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	
OCT										
17...	1530	6	<0.5	<10	<1	<5	<3	<10	23	
17...	1545	7	<0.5	<10	<1	<5	<3	<10	20	
MAY										
31...	1045	7	<0.5	<4	<1	<5	<3	<10	160	
31...	1100	7	<0.5	7	<1	<5	<3	<10	180	
JUN										
26...	0930	5	<0.5	<4	<1	<5	<3	<10	78	
26...	0945	6	<0.5	<4	1	<5	<3	<10	130	
JUL										
24...	0930	7	<0.5	4	<1	<5	<3	<10	34	
24...	0945	7	<0.5	6	<1	<5	<3	<10	28	
AUG										
07...	0930	7	<0.5	<4	<1	<5	<3	<10	32	
07...	0945	7	<0.5	<4	<1	<5	<3	<10	30	
SEP										
11...	0930	8	<0.5	<4	<1	<5	<3	<10	31	
11...	0945	8	<0.5	<4	<1	<5	<3	<10	32	

**09014500 SHADOW MOUNTAIN LAKE NEAR GRAND LAKE, CO--Continued**

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT									
17...	10	<4	1	<10	<10	<0.2	42	<6	<3
17...	<10	<4	2	<10	<10	<0.2	46	<6	11
MAY									
31...	<10	<4	7	<10	10	<0.2	30	<6	<3
31...	<10	<4	24	<10	<10	<0.2	33	<6	4
JUN									
26...	<10	<4	<1	20	<10	<0.2	22	<6	<3
26...	<10	<4	3	<10	<10	<0.2	23	<6	6
JUL									
24...	<10	<4	1	<10	<10	<0.2	36	<6	<3
24...	<10	<4	4	<10	<10	<0.2	38	<6	<3
AUG									
07...	<10	<4	2	<10	<10	<0.2	39	<6	<3
07...	<10	<4	2	10	<10	<0.2	40	<6	4
SEP									
11...	20	<4	4	<10	<10	<0.2	42	<6	<3
11...	<10	<4	6	<10	<10	<0.2	42	<6	<3

## COLORADO RIVER BASIN

**09018300 GRANBY PUMP CANAL NEAR GRAND LAKE, CO**  
**WATER-QUALITY RECORDS**

LOCATION.--Lat 40°12'25", long 105°50'56", in SW<sup>1/4</sup>NE<sup>1/4</sup> sec.24, T. 3 N., R.76 W., Grand County, Hydrologic Unit 14010001, at road crossing at south end of Shadow Mountain Lake, 4 mi southwest of Grand Lake, and 13.5 mi northeast of Granby.

PERIOD OF RECORD.--September 1970 to September 1975, March 1978 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-	SPE-				HARD-	CALCIUM	MAGNE-	SODIUM,	
		CHARGE, INST. CUBIC FEET	CIFIC CON- DUCT- PER SECOND	PH (STAND- ANCE (US/CM)	TEMPER- ATURE ARD UNITS)	OXYGEN, DIS- SOLVED (MG/L)	TOTAL AS CACO3)	NESS TOTAL (MG/L)	DIS- SOLVED (MG/L) AS CA)	SIUM, DIS- SOLVED (MG/L) AS MG)	DIS- SOLVED (MG/L) AS NA)
OCT 19...	0530	410		59	7.6	8.0	2.5	23	7.2	1.3	2.2
JAN 11...	1630	402		54	--	3.0	8.5	23	7.1	1.3	2.2
FEB 27...	1900	398		57	7.5	3.5	6.3	22	7.0	1.2	2.1
MAR 28...	0745	350		56	7.6	3.5	5.9	22	6.8	1.2	2.1
AUG 12...	1715	404		55	7.4	14.0	6.3	21	6.6	1.2	2.0
29...	0645	410		55	7.1	7.5	3.4	20	6.2	1.2	1.8

DATE	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L) AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDs, RESIDUE AT 180 DEG. C (MG/L)	SOLIDs, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	
OCT 19...	0.2	0.7	25		2.6	0.5	0.1	7.0	44	37
JAN 11...	0.2	0.7	25		1.9	0.5	0.2	5.1	34	34
FEB 27...	0.2	0.7	24		2.8	0.4	0.1	5.1	50	34
MAR 28...	0.2	0.6	24		2.6	0.4	0.1	5.2	36	34
AUG 12...	0.2	0.7	23		2.7	0.6	0.2	5.2	26	34
29...	0.2	0.7	23		2.7	0.4	0.1	5.0	28	32

DATE	SOLIDs, DIS- SOLVED (TONS PER AC-FT)	SOLIDs, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)
OCT 19...	0.06	48.7	<0.01	0.2	0.11	<0.02	<0.01	<0.01	<0.01
JAN 11...	0.05	36.9	<0.01	0.4	<0.05	<0.02	<0.01	<0.01	<0.01
FEB 27...	0.07	53.7	<0.01	<0.2	0.09	<0.02	0.01	<0.01	<0.01
MAR 28...	0.05	34.0	<0.01	0.2	0.08	<0.02	0.02	<0.01	<0.01
AUG 12...	0.03	28.4	0.01	0.2	0.09	0.03	<0.01	<0.01	0.01
29...	0.04	31.0	<0.01	<0.2	0.08	<0.02	<0.01	<0.01	<0.01

## 09018300 GRANBY PUMP CANAL NEAR GRAND LAKE, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	BERYL-LIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS BE)	CHIRO-MIUM, DIS-SOLVED (UG/L AS CD)	COBALT, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CO)	IRON, DIS-SOLVED (UG/L AS CU)	LEAD, DIS-SOLVED (UG/L AS FE)
OCT 19...	7	<0.5	<1	<5	<3	<10	36
JAN 11...	7	<0.5	<1	<5	<3	<10	8
FEB 27...	4	<0.5	<1	<5	<3	<10	<10
MAR 28...	7	<0.5	<1	<5	<3	<10	11
AUG 12...	8	1	<1	<5	<3	<10	24
29...	7	<0.5	1	<5	<3	<10	9

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGANESE, DIS-SOLVED (UG/L AS MN)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SILVER, DIS-SOLVED (UG/L AS AG)	STRONTIUM, DIS-SOLVED (UG/L AS SR)	VANADIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 19...	<4	37	<10	<10	1	47	<6	18
JAN 11...	<4	<1	<10	<10	<1	45	<6	<3
FEB 27...	11	<1	<10	<10	<1	29	<6	<3
MAR 28...	<4	1	10	<10	<1	40	<6	7
AUG 12...	<4	5	<10	<10	<1	43	<6	12
29...	<4	<1	<10	<10	<1	40	<6	<3

## COLORADO RIVER MAIN STEM

**09018500 LAKE GRANBY NEAR GRANBY, CO**

LOCATION.--Lat  $40^{\circ}10'55''$ , long  $105^{\circ}52'14''$ , in NW $^{1/4}$ NE $^{1/4}$  sec.35, T.3 N., R.76 W., Grand County, Hydrologic Unit 14010001, in Granby pumping plant at north shore of lake, 2.5 mi north of Granby Dam on Colorado River and 7.5 mi northeast of Granby.

DRAINAGE AREA.--312 mi<sup>2</sup>.

**RESERVOIR ELEVATIONS AND CONTENTS RECORDS**

PERIOD OF RECORD.--October 1949 to current year. Prior to October 1955, published as Granby Reservoir near Granby.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is above sea level, (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above sea level. Prior to Apr. 9, 1951, nonrecording gage at dam at present datum.

REMARKS.--Lake is formed by earthfill dam and dikes. Regulation began Sept. 13, 1949, and usable storage began June 14, 1950, while dam was under construction. Usable capacity, 465,600 acre-ft, between elevations 8,186.00 ft, trash rack sill at outlet, and 8,280.00 ft, top of radial spillway gates. Dead storage, 74,190 acre-ft. Figures given represent usable contents. Lake is used to store water for pumping to Shadow Mountain Lake for transmountain diversion through Alva B. Adams tunnel for power and irrigation in South Platte River basin.

COOPERATION.--Records provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 465,900 acre-ft, July 13, 1962, elevation, 8,280.05 ft; minimum since appreciable storage was attained, 13,070 acre-ft, Apr. 16, 1978, elevation, 8,190.93 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 464,800 acre-ft, June 19, elevation, 8,279.89 ft; minimum, 364,600 acre-ft, May 5-6, elevation, 8,265.45 ft.

## MONTHEND ELEVATION AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30 . . . . .	8,277.99	451,100	-
Oct. 31 . . . . .	8,277.20	445,400	-5,700
Nov. 30 . . . . .	8,275.72	434,900	-10,500
Dec. 31 . . . . .	8,274.02	423,000	-11,900
CAL YR 1995 . . . . .			+154,500
Jan. 31 . . . . .	8,272.69	413,700	-9,300
Feb. 29 . . . . .	8,271.26	403,800	-9,900
Mar. 31 . . . . .	8,269.75	393,400	-10,400
Apr. 30 . . . . .	8,266.07	368,700	-24,700
May 31 . . . . .	8,273.40	418,600	+49,900
June 30 . . . . .	8,279.61	462,700	+44,100
July 31 . . . . .	8,278.21	452,700	-10,000
Aug. 31 . . . . .	8,275.78	435,300	-17,400
Sept. 30 . . . . .	8,274.37	425,400	-9,900
WTR YR 1996 . . . . .			-25,700

**09018500 LAKE GRANBY (EAST) NEAR GRANBY, CO--Continued**  
**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--November 1973 to June 1975, June 1979 to current year.

REMARKS.--Samples were collected near-surface and near-bottom, near spillway.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISOLVED (MG/L)
<b>OCT</b>						
18...	0915	0.1	50	7.6	10.0	6.8
18...	0916	5.0	50	7.5	10.0	6.8
18...	0917	10	50	7.5	10.0	6.8
18...	0918	15	50	7.5	10.0	6.8
18...	0919	20	50	7.5	10.0	6.7
18...	0920	25	50	7.5	10.0	6.7
18...	0921	30	50	7.5	10.0	6.7
18...	0922	40	51	7.4	9.5	6.3
18...	0923	50	51	7.4	9.5	6.2
18...	0924	60	52	7.3	9.5	5.6
18...	0925	70	53	7.2	9.0	4.2
18...	0926	80	54	7.0	8.5	2.1
18...	0927	90	55	6.9	8.0	1.5
18...	0928	100	55	6.9	7.5	1.4
18...	0929	110	55	6.9	7.5	1.4
18...	0930	120	55	6.9	7.5	1.3
18...	0931	130	55	6.8	7.5	1.3
18...	0932	140	55	6.8	7.5	1.3
18...	0933	150	55	6.8	7.5	1.3
18...	0934	160	55	6.8	7.5	1.3
<b>MAY</b>						
30...	1010	0.1	49	7.9	9.0	8.8
30...	1011	5.0	49	7.9	8.5	9.1
30...	1012	10	49	7.9	8.5	9.1
30...	1013	15	49	7.8	8.0	8.9
30...	1014	20	49	7.8	8.0	8.6
30...	1015	25	49	7.8	7.5	8.5
30...	1016	30	49	7.7	7.5	8.4
30...	1017	40	48	7.7	7.5	8.3
30...	1018	50	48	7.6	7.0	8.2
30...	1019	60	49	7.5	6.5	7.9
30...	1020	70	49	7.5	6.5	7.8
30...	1021	80	50	7.4	6.0	7.6
30...	1022	90	50	7.4	6.0	7.5
30...	1023	100	51	7.4	6.0	7.4
30...	1024	110	51	7.4	6.0	7.3
30...	1025	120	51	7.4	6.0	7.3
30...	1026	130	51	7.3	5.5	7.3
<b>JUN</b>						
25...	0930	0.1	49	8.4	15.5	8.7
25...	0931	5.0	49	8.3	15.5	9.0
25...	0932	10	49	8.4	15.5	8.8
25...	0933	15	49	8.3	15.0	8.8
25...	0934	20	46	7.9	12.5	9.0
25...	0935	25	52	7.7	11.0	8.5
25...	0936	30	48	7.7	10.5	8.5
25...	0937	40	51	7.6	9.5	8.2
25...	0938	50	51	7.5	8.5	7.9
25...	0939	60	53	7.4	7.0	7.8
25...	0940	70	52	7.4	6.5	7.5
25...	0941	80	53	7.3	6.0	7.2
25...	0942	90	53	7.3	6.0	7.3
25...	0943	100	53	7.3	6.0	7.3
25...	0944	110	53	7.2	6.0	7.2
25...	0945	120	53	7.2	6.0	7.2
25...	0946	130	53	7.2	6.0	7.3
<b>JUL</b>						
23...	1115	0.1	52	8.7	19.5	9.3
23...	1116	5.0	52	8.6	19.0	7.4
23...	1117	10	52	8.5	18.5	7.5
23...	1118	15	52	8.4	18.5	7.3
23...	1119	20	52	8.3	18.5	7.3
23...	1120	25	51	7.8	16.5	7.2
23...	1121	30	51	7.4	15.5	6.8
23...	1122	40	51	7.1	10.0	6.7
23...	1123	50	52	7.1	8.5	6.7
23...	1124	60	51	7.0	8.0	6.5
23...	1125	70	54	7.0	7.5	6.1
23...	1126	80	54	6.9	7.0	5.9
23...	1127	90	53	6.9	7.0	6.0
23...	1128	100	53	6.9	6.5	6.0
23...	1129	110	53	6.8	6.5	5.7
23...	1130	120	54	6.8	6.5	5.7
23...	1131	130	54	6.8	6.5	5.7
23...	1132	140	54	6.8	6.5	5.7
23...	1133	150	54	6.8	6.5	5.7
23...	1134	160	54	6.8	6.5	5.8

## COLORADO RIVER MAIN STEM

## 09018500 LAKE GRANBY (EAST) NEAR GRANBY, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)
<b>AUG</b>						
06...	1030	0.1	52	8.0	18.0	7.0
06...	1031	5.0	52	8.1	18.0	7.1
06...	1032	10	52	8.1	17.5	7.0
06...	1033	15	52	8.1	17.5	7.0
06...	1034	20	52	8.1	17.5	7.0
06...	1035	25	52	8.1	17.5	7.0
06...	1036	30	51	7.8	17.0	6.8
06...	1037	40	52	7.4	12.0	6.6
06...	1038	50	52	7.3	9.0	6.5
06...	1039	60	53	7.2	8.0	6.2
06...	1040	70	54	7.1	7.5	5.8
06...	1041	80	54	7.0	7.0	5.6
06...	1042	90	54	7.0	7.0	5.5
06...	1043	100	54	6.9	7.0	5.4
06...	1044	110	54	6.9	7.0	5.3
06...	1045	120	54	6.9	7.0	5.2
06...	1046	130	54	6.8	6.5	5.2
06...	1047	140	54	6.8	6.5	5.3
06...	1048	150	54	6.8	6.5	5.2
<b>SEP</b>						
10...	1035	0.1	49	7.6	16.5	6.7
10...	1036	5.0	49	7.6	16.0	6.7
10...	1037	10	49	7.6	16.0	6.7
10...	1038	15	49	7.6	16.0	6.6
10...	1039	20	49	7.6	16.0	6.7
10...	1040	25	49	7.6	16.0	6.6
10...	1041	30	50	7.5	15.5	6.4
10...	1042	40	50	7.2	14.5	5.7
10...	1043	50	49	7.1	9.5	5.6
10...	1044	60	50	7.0	7.5	5.4
10...	1045	70	50	7.0	7.5	5.2
10...	1046	80	50	6.9	7.0	4.9
10...	1047	90	50	6.9	7.0	4.6
10...	1048	100	50	6.9	7.0	4.5
10...	1049	110	50	6.8	7.0	4.5

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (IN)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
<b>OCT</b>										
18...	0945	0.1	50	7.6	10.0	149	6.8	<1	21	6.6
18...	1000	160	55	6.8	7.5	--	1.3	--	24	7.3
<b>MAY</b>										
30...	1030	0.1	49	7.9	9.0	134	8.8	<1	22	6.6
30...	1045	130	51	7.3	5.5	--	7.3	--	22	6.8
<b>JUN</b>										
25...	1000	0.1	49	8.4	15.5	145	8.7	<1	20	6.0
25...	1015	130	53	7.2	6.0	--	7.3	--	22	6.9
<b>JUL</b>										
23...	1145	0.1	52	8.7	19.5	126	9.3	<1	20	6.1
23...	1200	160	54	6.8	6.5	--	5.8	--	21	6.6
<b>AUG</b>										
06...	1100	0.1	52	8.0	18.0	128	7.0	K1	19	5.7
06...	1115	150	54	6.8	6.5	--	5.2	--	21	6.4
<b>SEP</b>										
10...	1100	0.1	49	7.6	16.5	169	6.7	<1	21	6.4
10...	1115	110	50	6.8	7.0	--	4.5	--	22	6.7

K-Based on non-ideal colony count.

## COLORADO RIVER MAIN STEM

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## 09018500 LAKE GRANBY (EAST) NEAR GRANBY, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD- SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C
<b>OCT</b>										
18...	1.2	2.0	0.2	0.7	23	2.7	0.5	0.1	5.3	34
18...	1.3	2.2	0.2	0.7	25	2.6	0.6	<0.1	7.2	44
<b>MAY</b>										
30...	1.3	2.3	0.2	0.6	24	3.0	0.4	<0.1	5.2	56
30...	1.3	2.3	0.2	0.6	25	3.1	0.4	<0.1	5.3	58
<b>JUN</b>										
25...	1.1	1.8	0.2	0.7	22	2.4	0.4	0.2	4.5	30
25...	1.2	2.1	0.2	0.7	23	2.6	0.4	0.1	5.3	36
<b>JUL</b>										
23...	1.1	1.8	0.2	0.6	22	2.6	0.3	0.1	4.8	16
23...	1.2	2.0	0.2	0.7	23	2.9	0.4	0.1	5.5	26
<b>AUG</b>										
06...	1.1	1.7	0.2	0.6	22	2.6	0.4	0.1	4.3	42
06...	1.2	2.0	0.2	0.7	24	2.9	0.5	0.1	5.1	58
<b>SEP</b>										
10...	1.1	1.8	0.2	0.7	22	2.4	0.4	0.1	4.3	24
10...	1.2	2.0	0.2	0.7	23	2.6	0.7	<0.1	5.4	42
DATE	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM- MONIA + ORGANIC DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	CHLOR-A PHYTO- PLANK-TON (UG/L)	CHLOR-B PHYTO- PLANK-TON (UG/L)
<b>OCT</b>										
18...	33	<0.01	<0.05	0.02	0.30	<0.01	<0.01	<0.01	7.2	0.2
18...	38	<0.01	0.12	<0.02	<0.20	<0.01	<0.01	<0.01	--	--
<b>MAY</b>										
30...	34	<0.01	0.06	0.02	0.30	0.02	0.02	<0.01	1.7	0.2
30...	35	<0.01	0.08	0.03	0.20	0.02	0.02	<0.01	--	--
<b>JUN</b>										
25...	31	<0.01	0.05	<0.02	<0.20	<0.01	<0.01	<0.01	1.4	<0.1
25...	33	0.02	0.06	<0.02	<0.20	<0.01	<0.01	<0.01	--	--
<b>JUL</b>										
23...	31	<0.01	0.08	0.03	0.30	<0.01	<0.01	<0.01	1.6	--
23...	34	<0.01	0.10	0.04	0.30	<0.01	<0.01	0.01	--	<0.1
<b>AUG</b>										
06...	30	<0.01	0.05	0.02	<0.20	<0.01	<0.01	<0.01	2.6	<0.1
06...	36	<0.01	0.09	0.02	<0.20	<0.01	<0.01	0.01	--	--
<b>SEP</b>										
10...	31	<0.01	0.06	<0.02	0.20	<0.01	<0.01	<0.01	1.2	<0.2
10...	34	<0.01	0.11	<0.02	<0.20	<0.01	<0.01	<0.01	--	--
DATE	TIME	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	
<b>OCT</b>										
18...	0945	8	<0.5	10	<1	<5	<3	<10	7	
18...	1000	7	<0.5	<10	<1	<5	<3	<10	25	
<b>MAY</b>										
30...	1030	8	<0.5	<4	<1	<5	<3	<10	26	
30...	1045	8	<0.5	7	<1	<5	<3	<10	20	
<b>JUN</b>										
25...	1000	8	<0.5	<4	<1	<5	<3	<10	21	
25...	1015	7	<0.5	<4	<1	<5	<3	<10	17	
<b>JUL</b>										
23...	1145	7	<0.5	<4	<1	<5	<3	<10	<3	
23...	1200	8	<0.5	<4	<1	<5	<3	<10	14	
<b>AUG</b>										
06...	1100	7	<0.5	<4	<1	<5	<3	<10	3	
06...	1115	8	<0.5	<4	2	<5	<3	<10	18	
<b>SEP</b>										
10...	1100	8	<0.5	<4	<1	<5	3	<10	4	
10...	1115	8	<0.5	5	<1	<5	<3	<10	17	

## COLORADO RIVER MAIN STEM

**09018500 LAKE GRANBY (EAST) NEAR GRANBY, CO--Continued**

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	LEAD, (UG/L AS PB)	LITHIUM (UG/L AS LI)	MANGA- NESE, (UG/L AS MN)	MOLYB- DENUM, (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT									
18...	<10	<4	<1	<10	<10	<0.2	43	<6	10
18...	<10	<4	20	<10	<10	<0.2	48	<6	6
MAY									
30...	<10	<4	1	<10	<10	<0.2	41	<6	<3
30...	<10	<4	1	<10	<10	<0.2	42	<6	4
JUN									
25...	<10	<4	<1	<10	<10	<0.2	38	<6	5
25...	<10	<4	2	<10	<10	<0.2	42	<6	<3
JUL									
23...	<10	<4	<1	<10	<10	<0.2	38	<6	<3
23...	<10	<4	1	<10	<10	<0.2	43	<6	<3
AUG									
06...	<10	<4	<1	<10	<10	<0.2	35	<6	<3
06...	10	<4	2	<10	<10	<0.2	42	<6	4
SEP									
10...	<10	<4	<1	<10	<10	<0.2	38	<6	<3
10...	<10	<4	1	<10	<10	<0.2	42	<6	<3

**400844105530800 LAKE GRANBY (WEST) NEAR GRANBY, CO**  
**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--May 1989 to current year.

REMARKS.--Samples were collected near-surface and near-bottom, near dam in Rainbow Bay.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
<b>OCT</b>						
18...	1030	0.1	51	7.4	9.5	6.8
18...	1031	5.0	51	7.4	9.5	6.8
18...	1032	10	51	7.4	9.5	6.7
18...	1033	15	51	7.4	9.5	6.7
18...	1034	20	51	7.3	9.5	6.7
18...	1035	25	51	7.3	9.5	6.7
18...	1036	30	51	7.3	9.5	6.6
18...	1037	40	51	7.3	9.5	6.6
18...	1038	50	51	7.3	9.5	6.6
18...	1039	60	51	7.3	9.5	6.6
18...	1040	70	51	7.3	9.5	6.6
<b>MAY</b>						
30...	1105	0.1	50	7.8	10.5	8.5
30...	1106	5.0	50	7.8	9.5	8.6
30...	1107	10	50	7.9	9.0	8.6
30...	1108	15	50	7.9	8.5	8.6
30...	1109	20	50	7.9	8.5	8.7
30...	1110	25	50	7.8	8.5	8.6
30...	1111	30	50	7.8	8.0	8.5
30...	1112	40	50	7.7	8.0	8.5
30...	1113	50	50	7.7	8.0	8.4
30...	1114	60	51	7.6	7.0	8.2
30...	1115	70	51	7.5	6.5	7.8
<b>JUN</b>						
25...	1030	0.1	52	8.2	16.0	8.3
25...	1031	5.0	52	8.3	15.5	8.3
25...	1032	10	52	8.3	15.0	8.3
25...	1033	15	52	8.3	14.5	8.3
25...	1034	20	52	8.0	13.0	8.6
25...	1035	25	53	7.9	11.5	10.5
25...	1036	30	53	7.7	10.5	9.4
25...	1037	40	53	7.6	9.0	8.9
25...	1038	50	53	7.5	8.5	8.1
25...	1039	60	53	7.4	7.5	7.3
25...	1040	70	54	7.3	7.0	7.3
<b>JUL</b>						
23...	1215	0.1	54	8.7	19.0	7.3
23...	1216	5.0	54	8.4	19.0	7.3
23...	1217	10	54	8.4	18.5	7.3
23...	1218	15	53	8.4	18.5	7.3
23...	1219	20	54	8.4	18.0	7.1
23...	1220	25	55	7.7	16.5	6.9
23...	1221	30	56	7.4	15.0	6.6
23...	1222	40	53	7.2	11.0	6.4
23...	1223	50	53	7.0	9.5	6.1
23...	1224	60	54	6.9	7.5	5.2
<b>AUG</b>						
06...	1125	0.1	52	7.9	17.5	6.8
06...	1126	5.0	52	7.8	17.5	6.8
06...	1127	10	53	7.9	17.5	6.8
06...	1128	15	53	7.9	17.0	6.7
06...	1129	20	53	7.8	17.0	6.7
06...	1130	25	53	7.8	17.0	6.8
06...	1131	30	53	7.4	15.5	6.2
06...	1132	40	53	7.2	11.0	6.2
06...	1133	50	53	7.1	9.5	5.9
06...	1134	60	54	7.0	8.0	5.6
06...	1135	70	54	6.9	7.5	5.1
<b>SEP</b>						
10...	1135	0.1	50	7.7	17.0	6.5
10...	1136	5.0	50	7.7	16.5	6.5
10...	1137	10	50	7.7	16.0	6.5
10...	1138	15	50	7.7	16.0	6.6
10...	1139	20	50	7.7	16.0	6.5
10...	1140	25	50	7.6	16.0	6.5
10...	1141	30	50	7.6	15.5	6.5
10...	1142	40	50	7.3	14.0	5.3
10...	1143	50	51	7.1	8.5	4.8
10...	1144	60	51	7.0	7.5	4.4

## COLORADO RIVER MAIN STEM

## 400844105530800 LAKE GRANBY (WEST) NEAR GRANBY, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SPE-	TRANS-	COLI-	HARD-	CALCIUM				
		SAM- PLING DEPTH (FEET)	CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	FORM, FECAL DIS- UM-MF (COLS./ 100 ML)	NESS TOTAL (MG/L AS CACO3)	
<b>OCT</b>										
18...	1050	0.1	51	7.4	9.5	155	6.8	<1	22	6.7
18...	1100	70	51	7.3	9.5	--	6.6	--	22	6.8
<b>MAY</b>										
30...	1130	0.1	50	7.8	10.5	97.0	8.5	K1	23	6.9
30...	1145	70	51	7.5	6.5	--	7.8	--	23	6.9
<b>JUN</b>										
25...	1045	0.1	52	8.2	16.0	154	8.3	<1	20	6.0
25...	1100	70	54	7.3	7.0	--	7.3	--	22	6.9
<b>JUL</b>										
23...	1230	0.1	54	8.7	19.0	110	7.3	K1	20	6.3
23...	1245	60	54	6.9	7.5	--	5.2	--	21	6.6
<b>AUG</b>										
06...	1140	0.1	52	7.9	17.5	113	6.8	<1	20	6.0
06...	1155	70	54	6.9	7.5	--	5.1	--	21	6.3
<b>SEP</b>										
10...	1145	0.1	50	7.7	17.0	186	6.5	<1	21	6.5
10...	1200	60	51	7.0	7.5	--	4.4	--	22	6.7
DATE		MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- TION RATIO	ALKA- LINITY (MG/L AS K)	SULFATE (MG/L AS CACO3)	CHLO- RIDE, DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L AS SIO2)
<b>OCT</b>										
18...	1.2	2.0	0.2	0.7	24	2.5	0.4	<0.1	5.5	40
18...	1.2	2.1	0.2	0.7	24	2.5	0.5	<0.1	5.5	32
<b>MAY</b>										
30...	1.3	2.3	0.2	0.7	24	2.9	0.4	0.1	5.2	50
30...	1.3	2.3	0.2	0.7	24	3.0	0.4	0.1	5.2	46
<b>JUN</b>										
25...	1.2	1.8	0.2	0.7	22	2.5	0.4	0.1	4.6	24
25...	1.2	2.0	0.2	0.7	24	2.6	0.4	0.1	5.2	32
<b>JUL</b>										
23...	1.1	1.9	0.2	0.6	22	2.7	0.3	0.1	5.0	14
23...	1.2	1.9	0.2	0.7	23	2.7	0.4	0.1	5.3	18
<b>AUG</b>										
06...	1.1	1.7	0.2	0.6	22	2.7	0.4	0.1	4.5	44
06...	1.2	1.9	0.2	0.6	20	2.9	0.5	0.1	5.0	56
<b>SEP</b>										
10...	1.1	1.9	0.2	0.7	23	2.4	0.3	0.1	4.4	28
10...	1.2	2.0	0.2	0.7	23	2.6	0.4	<0.1	5.4	32
DATE		SOLIDs, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE NO2+NO3	NITRO- GEN, AMMONIA	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)
<b>OCT</b>										
18...	33	<0.01	<0.05	<0.02	<0.20	<0.01	0.02	<0.01	4.9	0.2
18...	34	<0.01	<0.05	0.02	0.20	<0.01	0.03	0.01	--	--
<b>MAY</b>										
30...	35	<0.01	0.07	0.02	0.30	0.02	0.02	<0.01	0.8	<0.1
30...	35	<0.01	0.07	0.02	0.30	<0.01	0.02	<0.01	--	--
<b>JUN</b>										
25...	31	<0.01	0.05	<0.02	<0.20	<0.01	<0.01	<0.01	1.	<0.1
25...	34	0.01	0.05	<0.02	<0.20	<0.01	<0.01	<0.01	--	--
<b>JUL</b>										
23...	32	<0.01	0.06	0.04	0.30	<0.01	<0.01	<0.01	1.7	<0.1
23...	37	0.01	0.08	0.04	0.30	<0.01	<0.01	<0.01	--	--
<b>AUG</b>										
06...	31	<0.01	0.05	0.02	<0.20	<0.01	<0.01	<0.01	2.	<0.1
06...	31	<0.01	0.07	0.03	<0.20	<0.01	<0.01	0.01	--	--
<b>SEP</b>										
10...	32	<0.01	0.06	<0.02	0.20	<0.01	<0.01	<0.01	0.7	<0.1
10...	33	<0.01	0.09	<0.02	<0.20	<0.01	<0.01	<0.01	--	--

K-Based on non-ideal colony count.

## 400844105530800 LAKE GRANBY (WEST) NEAR GRANBY, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)
OCT									
18...	1050	8	<0.5	<10	<1	<5	<3	<10	10
18...	1100	8	<0.5	<10	<1	<5	<3	<10	10
MAY									
30...	1130	8	<0.5	<4	<1	<5	<3	<10	22
30...	1145	8	<0.5	5	<1	<5	<3	<10	27
JUN									
25...	1045	7	<0.5	<4	<1	<5	<3	<10	16
25...	1100	7	<0.5	<4	1	<5	<3	<10	17
JUL									
23...	1230	7	<0.5	4	<1	<5	<3	<10	<3
23...	1245	8	<0.5	6	<1	<5	<3	<10	11
AUG									
06...	1140	7	<0.5	<4	<1	<5	<3	<10	4
06...	1155	8	<0.5	<4	<1	<5	<3	<10	15
SEP									
10...	1145	8	<0.5	<4	<1	<5	<3	<10	5
10...	1200	8	<0.5	<4	<1	<5	<3	<10	26

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT									
18...	10	<4	<1	<10	<10	<0.2	44	<6	14
18...	<10	<4	<1	<10	<10	<0.2	44	<6	12
MAY									
30...	10	<4	<1	<10	<10	<0.2	42	<6	<3
30...	<10	<4	5	<10	<10	<0.2	42	<6	<3
JUN									
25...	<10	<4	<1	<10	<10	<0.2	38	<6	<3
25...	<10	<4	<1	<10	<10	<0.2	41	<6	<3
JUL									
23...	<10	<4	<1	<10	<10	<0.2	38	<6	<3
23...	<10	<4	<1	<10	<10	<0.2	40	<6	<3
AUG									
06...	<10	<4	<1	<10	<10	<0.2	37	<6	<3
06...	<10	<4	3	<10	<10	<0.2	41	<6	7
SEP									
10...	<10	<4	<1	<10	<10	<0.2	38	<6	<3
10...	<10	<4	7	<10	<10	<0.2	42	<6	<3

## COLORADO RIVER MAIN STEM

**09019500 COLORADO RIVER NEAR GRANBY, CO**

LOCATION.--Lat  $40^{\circ}07'15''$ , long  $105^{\circ}54'00''$ , in SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec.22, T.2 N., R.76 W., Grand County, Hydrologic Unit 14010001, on right bank 0.3 mi upstream from bridge on U.S. Highway 34, 1.3 mi upstream from Willow Creek, and 3.2 mi northeast of Granby.

DRAINAGE AREA.--323 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1907 to September 1911 (published as Grand River near Granby), October 1933 to September 1953. May 1961 to current year (irrigation season only). Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 7,960 ft above sea level, from topographic map. June 10, 1908 to Sept. 30, 1911, and May 12 to June 10, 1934, nonrecording gage, at site 300 ft upstream at different datums. June 11, 1934 to Sept. 30, 1953, water-stage recorder at present site and datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Lake Granby (station 09018500) since Sept. 13, 1949. Several diversions for irrigation of hay meadows upstream from station. Transmountain diversions upstream from station by Eureka and Grand River ditches and Alva B. Adams tunnel (see elsewhere in this report). Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

EXTREMES FOR PERIOD OF SEASONAL RECORD.--Maximum discharge, 2,520 ft<sup>3</sup>/s, June 22, 1996, gage height, 5.76 ft; minimum daily, 9.6 ft<sup>3</sup>/s, Sept. 21, 1981.

EXTREMES FOR PERIOD OF CONTINUOUS RECORD.--Maximum discharge observed, 4,100 ft<sup>3</sup>/s, June 20, 1909, gage height, 5.5 ft, site and datum then in use; minimum daily, 6.6 ft<sup>3</sup>/s, Jan. 29, 1950; minimum observed prior to starting construction of Shadow Mountain Lake, 20 ft<sup>3</sup>/s, Apr. 6, 1936 (discharge measurement).

EXTREMES FOR CURRENT SEASON.--Maximum discharge, 2,520 ft<sup>3</sup>/s at 1915 June 22, gage height, 5.76 ft; minimum daily, 15 ft<sup>3</sup>/s, Sept. 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	519	71	463	73	39
2	---	---	---	---	---	---	---	300	73	391	57	39
3	---	---	---	---	---	---	---	85	72	207	43	32
4	---	---	---	---	---	---	---	89	70	91	43	22
5	---	---	---	---	---	---	---	91	71	147	42	19
6	---	---	---	---	---	---	---	86	72	278	41	19
7	---	---	---	---	---	---	---	82	71	428	41	16
8	---	---	---	---	---	---	---	82	71	400	42	16
9	---	---	---	---	---	---	---	80	77	302	41	15
10	---	---	---	---	---	---	---	81	73	143	41	17
11	---	---	---	---	---	---	---	79	69	66	41	22
12	---	---	---	---	---	---	---	80	66	58	40	22
13	---	---	---	---	---	---	---	81	261	60	40	22
14	---	---	---	---	---	---	---	79	484	59	40	23
15	---	---	---	---	---	---	---	83	499	61	40	23
16	---	---	---	---	---	---	---	81	498	58	41	22
17	---	---	---	---	---	---	---	83	596	62	40	22
18	---	---	---	---	---	---	---	86	782	64	40	23
19	---	---	---	---	---	---	---	85	1510	66	39	24
20	---	---	---	---	---	---	---	84	1910	65	38	24
21	---	---	---	---	---	---	---	84	1560	63	38	23
22	---	---	---	---	---	---	---	85	2110	65	38	23
23	---	---	---	---	---	---	---	83	1790	73	38	24
24	---	---	---	---	---	---	---	83	1160	73	38	24
25	---	---	---	---	---	---	---	87	1330	73	38	24
26	---	---	---	---	---	---	---	105	1010	74	37	24
27	---	---	---	---	---	---	---	90	1260	73	39	24
28	---	---	---	---	---	---	---	80	1080	72	42	23
29	---	---	---	---	---	---	---	71	814	77	39	23
30	---	---	---	---	---	---	---	70	465	74	39	23
31	---	---	---	---	---	---	---	70	---	77	39	---
TOTAL	---	---	---	---	---	---	---	3224	19975	4263	1288	696
MEAN	---	---	---	---	---	---	---	104	666	138	41.5	23.2
MAX	---	---	---	---	---	---	---	519	2110	463	73	39
MIN	---	---	---	---	---	---	---	70	66	58	37	15
AC-FT	---	---	---	---	---	---	---	6390	39620	8460	2550	1380

**09020700 WILLOW CREEK RESERVOIR NEAR GRANBY, CO**

LOCATION.--Lat 40°08'49", long 105°56'31", in SE<sup>1/4</sup> sec.7, T.2 N., R.76 W., Grand County, Hydrologic Unit 14010001, in shaft house near right end of Willow Creek Dam, 3.2 mi upstream from mouth, and 4.2 mi north of Granby.

DRAINAGE AREA.--134 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is above sea level, (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above sea level.

REMARKS.--Reservoir is formed by earth and rockfill dam; storage began March 1953. Dead storage pool filled May 3, 1953. Usable capacity, 9,060 acre-ft between elevations 8,077.00 ft, trash rack sill at outlet, and 8,130.00 ft, crest of spillway. Dead storage, 1,490 acre-ft. Figures given represent usable contents. Water is pumped to Lake Granby for transmountain diversion for irrigation and power in South Platte River basin.

COOPERATION.--Records provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 9,100 acre-ft, May 24, 1984, elevation, 8,130.12 ft; minimum, 50 acre-ft, Dec. 4, 1985 to Jan. 17, 1986, drawdown for maintenance, elevation, 8,077.50 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 8,610 acre-ft, July 6, 8, elevation, 8,128.46 ft; minimum, 5,520 acre-ft, Apr. 21, elevation, 8,115.95 ft.

MONTHEND ELEVATION AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30. . . . .	8,120.56	6,540	-
Oct. 31. . . . .	8,118.84	6,140	-400
Nov. 30. . . . .	8,120.62	6,550	+410
Dec. 31. . . . .	8,120.93	6,620	+70
CAL YR 1995. . . . .			+650
Jan. 31. . . . .	8,122.65	7,040	+420
Feb. 29. . . . .	8,124.19	7,440	+400
Mar. 31. . . . .	8,116.78	5,690	-1,750
Apr. 30. . . . .	8,116.02	5,530	-160
May 31. . . . .	8,125.86	7,880	+2,350
June 30. . . . .	8,127.74	8,400	+520
July 31. . . . .	8,125.86	7,880	-520
Aug. 31. . . . .	8,127.08	8,220	+340
Sept. 30. . . . .	8,126.64	8,090	-130
WTR YR 1996. . . . .			+1,550

## FRASER RIVER BASIN

**09022000 FRASER RIVER AT UPPER STATION, NEAR WINTER PARK, CO**

LOCATION.--Lat 39°50'45", long 105°45'05", in sec.26, T.2 S., R.75 W., Grand County, Hydrologic Unit 14010001, on left bank 0.8 mi upstream from Parsenn Creek, 2.5 mi south of Winter Park, and 7.8 mi southeast of Fraser.

DRAINAGE AREA.--10.5 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--May to September 1908, July to November 1909 (published as "at upper station near Fraser"), October 1968 to September 1973, August 1984 to current year. January to September 1911, gage heights only (published as "near Fraser"). Records for August to December 1910, published in WSP 289 as "near Fraser" are unreliable and should not be used.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 9,520 ft above sea level, from topographic map. Prior to Oct. 1, 1968, nonrecording gage at site 0.9 mi upstream at different datum. Since Oct. 1, 1968, supplementary water-stage recorder and Parshall flume on Berthoud Pass ditch.

REMARKS.--Records good except for estimated daily discharges, which are poor. Transmountain diversions upstream from station through Berthoud Pass ditch to Moffat water tunnel, (see elsewhere in this report).

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.3	5.5	e2.8	e2.1	e1.7	e2.0	2.7	4.7	48	53	13	7.1
2	7.9	4.7	e2.9	e2.0	e1.7	e2.1	3.1	4.8	48	51	13	6.9
3	7.4	e4.1	e2.8	e2.0	e1.6	e2.1	2.9	5.7	53	48	13	6.8
4	7.2	e3.7	e2.8	e2.1	e1.7	e2.2	2.7	8.0	62	48	12	6.7
5	7.2	e3.8	e2.7	e1.9	e1.8	e2.1	2.8	11	75	47	12	6.6
6	7.7	e3.9	e2.6	e1.7	e1.9	e2.0	3.0	13	88	47	11	7.4
7	8.6	e3.9	e2.5	e1.8	e1.9	e1.9	3.0	15	92	44	11	6.7
8	8.1	e4.0	e2.6	e1.9	e2.0	e1.7	3.6	19	99	41	11	6.1
9	8.1	e3.6	e2.6	e2.0	e2.0	e1.8	4.8	22	106	38	10	5.9
10	7.8	e3.3	e2.7	e1.9	e1.9	e1.9	5.7	23	108	35	10	5.8
11	8.0	e3.0	e2.7	e2.0	e1.8	e2.0	5.3	25	106	32	9.8	5.7
12	8.0	e3.1	e2.8	e2.1	e1.9	e2.1	4.7	33	98	30	9.5	8.4
13	7.8	e3.2	e2.7	e2.1	e1.9	e2.0	4.4	40	95	28	9.2	8.0
14	8.1	e3.3	e2.6	e2.2	e1.9	e2.0	4.2	47	93	27	8.8	8.0
15	7.4	e3.2	e2.5	e2.2	e2.0	e1.9	4.3	53	97	26	8.7	9.4
16	7.2	e3.2	e2.4	e2.2	e2.0	e1.9	4.6	63	94	24	8.6	7.1
17	7.0	e3.1	e2.4	e2.1	e2.0	e1.9	4.7	64	92	24	8.5	7.5
18	6.9	e3.0	e2.3	e2.0	e2.1	e1.9	4.4	67	92	26	8.4	7.9
19	6.6	e2.9	e2.3	e1.9	e2.1	e1.8	4.0	78	89	23	9.7	8.4
20	7.7	e2.8	e2.2	e1.9	e2.1	e1.9	4.1	77	90	21	8.9	8.4
21	7.0	e2.7	e2.1	e1.8	e2.1	e2.0	3.8	69	91	20	8.1	8.9
22	5.7	e2.7	e2.0	e1.8	e2.1	e2.2	3.7	70	96	19	9.1	9.2
23	6.0	e2.6	e1.9	e1.9	e2.0	e2.4	4.0	74	89	18	8.9	9.1
24	7.1	e2.5	e2.0	e1.9	e2.1	e2.3	5.6	75	80	17	8.1	9.5
25	6.7	e2.7	e2.0	e1.8	e2.1	e2.2	6.3	76	74	16	7.8	10
26	6.1	e2.9	e2.1	e1.7	e2.0	e2.1	5.3	64	66	15	7.7	9.6
27	5.8	e2.6	e2.2	e1.7	e1.8	e2.3	5.2	58	64	15	7.9	8.6
28	5.8	e2.3	e2.2	e1.7	e1.9	e2.4	5.0	53	62	14	7.9	10
29	5.6	e2.5	e2.2	e1.8	e2.0	e2.0	2.6	4.9	52	58	16	7.7
30	5.5	e2.6	e2.1	e1.8	---	2.6	4.6	50	56	15	7.5	10
31	5.5	---	e2.1	e1.8	---	2.6	---	49	---	14	7.3	---
TOTAL	219.8	97.4	74.8	59.8	56.1	64.9	127.4	1363.2	2461	892	294.1	240.7
MEAN	7.09	3.25	2.41	1.93	1.93	2.09	4.25	44.0	82.0	28.8	9.49	8.02
MAX	8.6	5.5	2.9	2.2	2.1	2.6	6.3	78	108	53	13	11
MIN	5.5	2.3	1.9	1.7	1.6	1.7	2.7	4.7	48	14	7.3	5.7
AC-FT	436	193	148	119	111	129	253	2700	4880	1770	583	477

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1996, BY WATER YEAR (WY)

MEAN	5.67	3.89	2.92	2.30	1.94	2.04	4.46	27.0	69.5	30.1	12.1	7.91
MAX	9.66	5.62	3.68	2.85	2.57	2.61	6.45	44.0	86.1	74.6	20.8	13.0
(WY)	1985	1985	1971	1985	1985	1969	1971	1996	1986	1995	1995	1984
MIN	4.15	2.61	1.62	1.63	1.45	1.41	2.12	8.10	38.2	12.2	6.39	4.62
(WY)	1995	1995	1987	1987	1987	1973	1995	1989	1994	1994	1994	1994

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1969 - 1996
ANNUAL TOTAL	6541.2	5951.2	
ANNUAL MEAN	17.9	16.3	
HIGHEST ANNUAL MEAN			14.1 1995
LOWEST ANNUAL MEAN			17.6 1994
HIGHEST DAILY MEAN	129	Jun 21	10.4 1994
LOWEST DAILY MEAN	<sup>a</sup> 1.5	Jan 21	1.2 Feb 26 1989
ANNUAL SEVEN-DAY MINIMUM	1.5	Jan 21	1.4 Feb 20 1989
INSTANTANEOUS PEAK FLOW		120 Jun 9	181 Jun 5 1972
INSTANTANEOUS PEAK STAGE		1.88 Jun 9	2.15 Jun 5 1972
ANNUAL RUNOFF (AC-FT)	12970	11800	10240
10 PERCENT EXCEEDS	71	59	43
50 PERCENT EXCEEDS	3.6	5.6	4.8
90 PERCENT EXCEEDS	1.6	1.9	1.9

e-Estimated

a-Also occurred Jan 22 to Feb 9, Feb 14-17.

**09022000 FRASER RIVER AT UPPER STATION NEAR WINTER PARK, CO--Continued**

**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--March 1994 to current year.

REMARKS.--Nutrient analysis based on low-level methods.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC COND. DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	CHLO- RIDE, DIS- SOLVED (MG/L) AS CL)
FEB 28...	1500	1.9	102	7.9	0.0	9.5	13
MAR 21...	1446	2.0	163	7.3	1.5	--	28
APR 30...	1512	4.6	189	7.5	1.5	10.6	37
MAY 17...	1650	62	78	7.8	2.5	10.0	12
JUN 28...	1704	62	51	7.6	5.0	9.5	4.2
JUL 30...	1534	15	69	8.2	11.0	7.3	5.7
SEP 09...	1552	13	82	8.3	7.5	--	6.6
30...	1621	12	83	8.0	5.0	11.5	8.1
DATE		RESIDUE TOTAL AT 105 DEG. C., SUS- PENDED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L) AS N)	NITRO- GEN, NO <sub>2</sub> +NO <sub>3</sub> DIS- SOLVED (MG/L) AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L) AS N)	PHOS- PHORUS DIS- SOLVED (MG/L) AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L) AS P)
FEB 28...		1	<0.001	0.120	<0.002	0.001	0.001
MAR 21...		1	<0.001	0.100	<0.002	0.001	<0.001
APR 30...		<1	<0.001	0.088	<0.002	0.002	0.001
MAY 17...		12	<0.001	0.084	<0.002	0.006	0.004
JUN 28...		1	<0.001	0.027	<0.002	0.005	<0.001
JUL 30...		2	<0.001	<0.005	<0.002	0.004	<0.001
SEP 09...		<1	0.002	0.014	<0.002	0.003	<0.001
30...		2	0.001	0.052	<0.002	0.001	<0.001

## FRASER RIVER BASIN

**09023750 FRASER RIVER BELOW BUCK CREEK AT WINTER PARK, CO**  
**WATER-QUALITY RECORDS**

LOCATION.--Lat 39°53'35", long 105°45'52", T.2 S., R.75 W., Grand County, Hydrologic Unit 14010001 on left bank approximately 400 ft upstream from the confluence of Cub Creek and the Fraser River.

DRAINAGE AREA.--25.6 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1990 to current year.

REVISED RECORDS.--WDR CO-93-2: Drainage area.

REMARKS.--Nutrient analysis based on low-level methods.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC COND- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	CHLO- RIDE, DIS- SOLVED (MG/L) AS CL
FEB 28...	1330	6.3	102	8.0	0.0	9.8	8.3
MAR 21...	1333	7.0	152	7.4	1.5	--	23
APR 30...	1405	13	155	8.2	2.0	--	25
MAY 17...	1430	140	67	8.0	4.0	9.4	7.9
JUN 28...	1509	168	47	8.0	6.0	9.1	2.6
JUL 30...	1359	26	70	8.1	11.0	7.9	5.2
SEP 09...	1357	7.8	88	8.4	9.5	--	5.9
30...	1016	24	77	8.1	3.0	--	5.4
DATE		RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L) AS N)	NITRO- GEN, NO <sub>2</sub> +NO <sub>3</sub> DIS- SOLVED (MG/L) AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L) AS N)	PHOS- PHORUS DIS- SOLVED (MG/L) AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L) AS P)
FEB 28...		1	<0.001	0.099	0.008	0.003	0.002
MAR 21...		54	<0.001	0.120	<0.002	0.004	<0.001
APR 30...		4	<0.001	0.078	<0.002	0.006	0.002
MAY 17...		11	<0.001	0.087	<0.002	0.006	0.003
JUN 28...		3	0.002	0.049	<0.002	0.008	0.002
JUL 30...		1	<0.001	<0.005	<0.002	0.004	<0.001
SEP 09...		2	0.002	0.019	<0.002	0.004	<0.001
30...		2	0.001	0.062	<0.002	0.003	<0.001

## 09024000 FRASER RIVER AT WINTER PARK, CO

LOCATION.--Lat 39°54'00", long 105°46'34", in SE<sup>1/4</sup> sec.4, T.2 S., R.75 W., Grand County, Hydrologic Unit 14010001, on left bank 500 ft downstream from bridge on U.S. Highway 40, 1.4 mi south of Winter Park, 2.0 mi upstream from Vasquez Creek, 3.5 mi downstream from point of diversion for Moffat water tunnel, and 3.9 mi southeast of Fraser.

DRAINAGE AREA.--27.6 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1910 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "near Arrow" 1910-23 and as "near West Portal" 1924-39 and as "near Winter Park" 1990-1992. Records since June 9, 1936, equivalent to earlier records if transmountain diversions are added to flow past station.

REVISED RECORDS.--WSP 929: Drainage area. WDR CO-89-2: 1988 (M).

GAGE.--Water-stage recorder. Datum of gage is 8,906.23 ft above sea level, Colorado State Highway Datum (levels by U.S. Geological Survey). Sept. 23, 1910 to May 12, 1916, nonrecording gage at trail bridge 0.6 mi upstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Transmountain diversions upstream from station through Berthoud Pass ditch (see elsewhere in this report) and to Moffat water tunnel (not known since 1968). Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.6	18	e16	e12	e8.7	e7.7	e12	17	41	120	25	9.9
2	8.1	16	e17	e12	e8.6	e7.9	13	19	39	105	24	9.9
3	7.6	e15	e16	e12	e8.2	e8.0	13	23	39	85	23	9.4
4	8.1	e15	e16	e13	e8.7	e7.9	12	28	41	82	23	9.3
5	8.4	e16	e16	e11	e9.0	e7.8	12	34	60	80	21	9.3
6	7.5	e16	16	e9.5	e9.2	e7.8	13	42	97	78	20	10
7	9.1	e16	16	e10	e9.4	e7.6	13	50	67	73	20	9.6
8	9.5	e16	e16	e11	e9.6	e7.4	15	61	55	68	19	9.1
9	9.3	16	e16	e11	e9.1	e8.0	18	63	92	62	19	8.6
10	9.3	16	e16	e11	e9.0	e8.5	19	71	115	57	18	8.3
11	8.6	e14	e17	e10	e8.6	e8.5	18	78	102	53	18	8.1
12	9.4	e15	e17	e9.9	e8.0	e8.7	16	93	119	50	17	8.4
13	9.8	e15	e16	e9.6	e8.2	e9.1	15	107	172	52	17	9.2
14	8.7	16	e16	e10	e8.4	9.6	14	123	164	55	16	9.4
15	9.2	15	e15	e10	e8.6	9.9	15	142	184	42	16	11
16	15	15	e15	e11	e8.8	10	15	170	199	39	16	13
17	20	15	e14	e11	e9.0	9.9	16	188	230	38	15	13
18	19	15	e14	e10	e9.0	10	16	196	238	41	15	14
19	19	15	e13	e9.6	e8.9	e10	16	225	204	37	17	15
20	19	14	e12	e10	e8.8	e10	16	212	207	35	17	15
21	18	15	e12	e9.3	e8.8	e11	14	159	207	34	12	15
22	18	14	e11	e9.4	e8.7	e12	14	89	216	33	11	16
23	18	14	e11	e9.6	e8.6	e13	14	84	213	32	11	16
24	25	17	e12	e9.7	e8.3	e14	20	76	214	31	11	17
25	22	16	e12	e9.4	e8.0	e14	23	74	195	30	10	24
26	19	16	e13	e8.8	e7.8	e14	18	65	170	29	10	25
27	18	16	e13	e8.5	e7.4	e14	18	52	168	28	10	22
28	17	e13	e13	e9.0	e7.3	e13	18	49	161	27	10	25
29	17	e14	e13	e9.2	e7.2	e13	16	49	137	30	10	26
30	17	e15	e13	e9.2	---	e13	16	45	127	29	10	26
31	17	---	e12	e8.8	---	e12	---	42	---	27	10	---
TOTAL	429.2	459	445	314.5	247.9	317.3	468	2726	4273	1582	491	421.5
MEAN	13.8	15.3	14.4	10.1	8.55	10.2	15.6	87.9	142	51.0	15.8	14.0
MAX	25	18	17	13	9.6	14	23	225	238	120	25	26
MIN	7.5	13	11	8.5	7.2	7.4	12	17	39	27	10	8.1
AC-FT	851	910	883	624	492	629	928	5410	8480	3140	974	836

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1996, BY WATER YEAR (WY)

MEAN	10.8	9.71	7.72	6.71	6.28	6.70	12.9	49.7	114	48.8	19.4	13.1
MAX	31.0	20.4	21.1	12.1	9.88	13.6	31.5	163	354	209	72.2	46.0
(WY)	1914	1928	1928	1928	1938	1918	1925	1928	1918	1957	1929	1925
MIN	2.93	2.72	2.83	2.92	3.11	3.58	5.05	7.42	5.76	4.92	3.37	2.57
(WY)	1957	1965	1965	1967	1933	1990	1970	1954	1954	1954	1954	1966

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1911 - 1996
ANNUAL TOTAL	16433.2	12174.4	25.5
ANNUAL MEAN	45.0	33.3	60.9
HIGHEST ANNUAL MEAN			5.93
LOWEST ANNUAL MEAN			1914
HIGHEST DAILY MEAN	424	Jun 22	1954
LOWEST DAILY MEAN	2.9	Jan 1	Jun 14 1918
ANNUAL SEVEN-DAY MINIMUM	3.1	Jan 1	a Mar 29 1912
INSTANTANEOUS PEAK FLOW			Oct 5 1956
INSTANTANEOUS PEAK STAGE			Jun 13 1918
ANNUAL RUNOFF (AC-FT)	32600	24150	820
10 PERCENT EXCEEDS	191	86	2.90
50 PERCENT EXCEEDS	15	15	18490
90 PERCENT EXCEEDS	4.3	8.6	59
			4.2

e-Estimated.

a-Also occurred Mar 30, Apr 9, 1912, and Jan 23, 1915.

## FRASER RIVER BASIN

## 09025000 VASQUEZ CREEK AT WINTER PARK, CO

LOCATION.--Lat 39°55'13", long 105°47'05", in NE<sup>1/4</sup>NW<sup>1/4</sup> sec.33. T.1 S., R.75 W., Grand County, Hydrologic Unit 14010001, on right bank 30 ft downstream from bridge on U.S. Highway 40, 0.2 mi upstream from mouth, 2.5 mi southeast of Fraser, and 4.5 mi downstream from Moffat water tunnel diversion.

DRAINAGE AREA.--27.8 mi<sup>2</sup>.

PERIOD OF RECORD.--June to August 1907, July to November 1909, October 1933 to current year. Monthly discharge only for some periods, published in WSP 1313. Records for June to October 1908, published in WSP 269, are unreliable and should not be used.

Published as Vasquez River at lower station, near Fraser 1907-09, as "near West Portal" 1934-39, and as "near Winter Park" 1940-87. Records for May 26, 1937 to September 1959, equivalent to earlier records if diversion to Moffat water tunnel is added to flow past station.

REVISED RECORDS.--See PERIOD OF RECORD.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 8,768.48 ft above sea level. June 1, 1907 to Oct. 31, 1909, nonrecording gage at site 0.8 mi upstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Transmountain diversions upstream from station to Moffat water tunnel not known since 1959. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	e17	e9.6	e6.2	e5.2	e5.6	e6.8	16	25	78	11	6.7
2	22	e16	e9.4	e6.2	e5.2	e5.6	e7.0	15	26	53	10	7.5
3	21	e16	e9.2	e6.0	e5.2	e5.6	e7.4	18	31	23	9.4	7.5
4	21	e15	e9.2	e6.0	e5.0	e5.6	e7.6	25	25	16	9.4	7.6
5	21	e15	e9.0	e5.4	e5.2	e5.6	e8.2	42	25	15	9.1	7.7
6	22	e15	e9.0	e5.4	e5.2	e5.6	e8.4	50	22	12	8.7	8.3
7	21	e15	e8.8	e5.4	e5.2	e6.0	e8.8	55	29	25	8.6	7.9
8	21	e15	e8.8	e5.4	e5.2	e6.2	e10	66	47	19	8.5	7.5
9	20	e15	e8.6	e5.4	e5.2	e6.2	e12	85	35	13	8.3	7.2
10	21	e14	e8.6	e5.4	e5.2	e6.2	e15	87	54	31	8.0	7.7
11	21	e14	e7.6	e5.4	e5.2	e6.2	e14	80	66	62	7.9	7.8
12	23	e14	e7.4	e5.4	e5.2	e6.2	e13	98	60	57	7.8	7.9
13	23	e14	e7.4	e5.4	e5.2	e6.2	e12	113	59	63	7.9	7.9
14	20	e14	e7.2	e5.4	e5.2	e6.2	e11	122	56	60	8.6	7.9
15	21	e14	e7.2	e5.4	e5.2	e6.2	e12	134	78	28	8.5	12
16	20	e14	e7.2	e5.4	e5.2	e6.2	e14	158	121	7.9	8.3	19
17	20	e14	e7.2	e5.4	e5.2	e6.2	12	167	152	12	8.1	18
18	19	e14	e7.2	e5.4	e5.2	e6.2	11	171	173	24	8.1	19
19	19	e14	e7.2	e5.4	e5.2	e6.2	12	180	158	16	8.9	19
20	17	e14	e7.2	e5.4	e5.2	e6.2	e12	171	146	11	8.7	19
21	19	e12	e7.0	e5.2	e5.6	e6.2	e12	146	157	11	8.3	20
22	17	e12	e7.0	e5.2	e5.6	e6.6	e12	131	196	10	8.0	23
23	17	e11	e7.0	e5.2	e5.6	e6.6	e14	116	174	11	7.9	22
24	26	e11	e7.0	e5.2	e5.6	e6.6	e16	75	165	9.8	7.5	22
25	e18	e11	e7.0	e5.2	e5.6	e6.6	21	73	155	7.7	7.3	22
26	e18	e11	e6.4	e5.2	e5.6	e6.6	20	66	140	7.7	7.3	22
27	e17	e10	e6.4	e5.2	e5.6	e6.6	20	53	128	13	7.4	20
28	e17	e10	e6.2	e5.2	e5.6	e6.6	18	45	103	11	7.4	22
29	e17	e9.8	e6.2	e5.2	e5.6	e6.6	16	43	89	12	7.3	25
30	e17	e9.8	e6.2	e5.2	--	e6.6	16	35	83	12	7.2	18
31	e17	---	e6.2	e5.2	--	e6.6	--	28	--	11	7.1	--
TOTAL	616	400.6	235.6	168.0	154.2	192.4	379.2	2664	2778	742.1	256.5	429.1
MEAN	19.9	13.4	7.60	5.42	5.32	6.21	12.6	85.9	92.6	23.9	8.27	14.3
MAX	26	17	9.6	6.2	5.6	6.6	21	180	196	78	11	25
MIN	17	9.8	6.2	5.2	5.0	5.6	6.8	15	22	7.7	7.1	6.7
AC-FT	1220	795	467	333	306	382	752	5280	5510	1470	509	851

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1996, BY WATER YEAR (WY)

MEAN	6.10	6.79	5.52	4.76	4.39	4.52	7.52	27.2	65.4	23.5	7.81	6.75
(WY)	35.1	21.9	13.4	10.0	9.99	9.14	19.8	119	234	177	41.2	27.0
1962	1962	1962	1958	1958	1995	1943	1958	1942	1983	1983	1936	1995
MIN	.66	1.84	1.30	1.28	.80	1.02	2.41	2.81	.14	.34	.39	.20
(WY)	1965	1963	1965	1960	1965	1965	1954	1940	1956	1960	1944	

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1934 - 1996
ANNUAL TOTAL	13360.8	9015.7	
ANNUAL MEAN	36.6	24.6	
HIGHEST ANNUAL MEAN			39.6
LOWEST ANNUAL MEAN			2.30
HIGHEST DAILY MEAN	287	Jun 18	417
LOWEST DAILY MEAN	e,a6.2	Dec 28	b.00
ANNUAL SEVEN-DAY MINIMUM	6.4	Dec 25	.00
INSTANTANEOUS PEAK FLOW		208 Jun 17	c.526 Jun 27 1983
INSTANTANEOUS PEAK STAGE		2.97 Jun 17	4.14 Jun 27 1983
ANNUAL RUNOFF (AC-FT)	26500	17880	
10 PERCENT EXCEEDS	141	66	21
50 PERCENT EXCEEDS	12	10	5.6
90 PERCENT EXCEEDS	7.4	5.4	1.5

e-Estimated.

a-Also occurred Dec 29-31.

b-Also no flow at times in 1946, 1956, 1960, and 1966.

c-From rating curve extended above 286 ft<sup>3</sup>/s.

**09025010 FRASER RIVER BELOW VASQUEZ CREEK AT WINTER PARK, CO**  
**WATER-QUALITY RECORDS**

LOCATION.--Lat 39°55'37", long 105°47'08", NE<sup>1/4</sup>SW<sup>1/4</sup> sec.28, T.1 S., R.75 W., Grand County, Hydrologic Unit 14010001, on left bank approximately 1,500 ft downstream from the confluence of Vasquez Creek and the Fraser River.

DRAINAGE AREA.--59.1 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1990 to current year.

REMARKS.--Nutrient analysis based on low-level methods.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC COND- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	CHLO- RIDE, DIS- SOLVED (MG/L) AS CL
FEB 28...	1000	10	22	7.8	0.0	9.9	5.5
MAR 21...	1156	13	105	7.6	0.5	10.3	9.9
APR 30...	1221	27	114	7.7	1.5	10.2	14
MAY 17...	1300	306	52	7.8	4.5	9.4	4.2
JUN 28...	1240	247	40	7.6	6.5	8.9	1.8
JUL 30...	1023	37	63	8.3	9.0	8.6	3.9
SEP 09...	1218	18	70	8.1	10.0	--	3.4
30...	1233	44	65	8.0	5.5	8.9	3.4
DATE		RESIDUE TOTAL AT 105 DEG. C,	NITRO- GEN, NITRITE DIS- SUS- PENDED (MG/L (MG/L AS N)	NITRO- GEN, NO <sub>2</sub> +NO <sub>3</sub> DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)
FEB 28...		2	0.001	0.320	0.394	0.041	0.037
MAR 21...		9	0.002	0.360	0.340	0.041	0.035
APR 30...		4	<0.001	0.110	0.056	0.014	0.010
MAY 17...		14	<0.001	0.053	<0.002	--	0.006
JUN 28...		4	0.003	0.029	0.003	0.006	0.002
JUL 30...		<1	<0.001	0.010	<0.002	0.007	<0.001
SEP 09...		<1	0.003	0.014	<0.002	0.011	0.003
30...		<1	0.002	0.034	<0.002	0.005	<0.001

## FRASER RIVER BASIN

## 09025400 ELK CREEK NEAR FRASER, CO

LOCATION.--Lat 39°55'09", long 105°49'31", in SE<sup>1/4</sup>NW<sup>1/4</sup> sec.31, T.1 S., R.75 W., Grand County, Hydrologic Unit 14010001, on right bank 100 ft upstream from unnamed tributary, 1,150 ft downstream from West Elk Creek, 2.0 mi southwest of Fraser, and 2.5 mi upstream from mouth.

DRAINAGE AREA.--7.15 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1970 to September 1996 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 8,805 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Transmountain diversions upstream from station to Moffat water tunnel. Diversions for irrigation of about 100 acres of hay meadows upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	e.70	e.62	e.31	e.34	e1.2	e1.6	e3.9	17	11	1.1	.32
2	.98	e.62	e.61	e.29	e.32	e1.1	e1.6	e5.0	13	10	1.4	.32
3	.70	e.54	e.60	e.30	e.29	e1.2	e1.7	e6.6	13	9.3	1.5	.30
4	.83	e.50	e.60	e.29	e.30	e1.2	e1.7	e10	13	8.6	1.3	.30
5	.72	e.54	e.58	e.28	e.32	e1.2	e1.6	e12	13	8.4	1.3	.47
6	e.70	e.60	e.56	e.27	e.35	e1.2	e1.7	e14	12	7.4	1.3	.94
7	e.72	e.54	e.54	e.31	e.39	e1.2	e1.8	e17	11	6.7	1.1	.97
8	.73	e.56	e.55	e.36	e.42	e1.2	e1.9	e19	11	5.7	1.1	.60
9	.69	e.58	e.56	e.40	e.47	e1.3	e2.0	e23	11	5.3	1.1	.29
10	.69	e.52	e.58	e.33	e.46	e1.5	e2.2	e23	13	4.6	1.1	.27
11	.68	e.47	e.61	e.32	e.40	e1.6	e2.0	e22	27	3.9	1.0	.35
12	.73	e.50	e.61	e.31	e.42	e1.5	e1.9	e27	26	3.1	.98	.58
13	.92	e.54	e.60	e.33	e.47	e1.5	e2.0	e35	25	3.0	.96	.79
14	.90	e.57	e.58	e.34	e.60	e1.5	e2.0	e47	23	2.9	1.1	1.1
15	.69	e.57	e.57	e.38	e.66	e1.4	e1.9	e56	30	2.9	1.0	1.4
16	.64	e.60	e.58	e.39	e.62	e1.5	e1.8	e54	27	2.9	.98	1.0
17	.59	e.62	e.54	e.39	e.68	e1.5	e1.7	e54	24	2.9	1.0	.80
18	.55	e.61	e.53	e.37	e.72	e1.4	e1.7	49	27	2.7	1.0	.35
19	e.56	e.61	e.51	e.33	e.78	e1.3	e1.7	54	27	2.6	1.2	.66
20	e.55	e.60	e.49	e.33	e.80	e1.5	e1.6	50	27	2.2	1.5	.79
21	e.54	e.58	e.47	e.35	e.90	e1.5	e1.8	40	27	2.0	.93	.88
22	e.55	e.56	e.45	e.34	e.92	e1.7	e2.2	38	30	1.7	.51	.97
23	e.54	e.56	e.44	e.34	e.92	e1.8	e2.9	34	23	1.4	.69	1.0
24	e.58	e.56	e.45	e.33	e.94	e1.7	e3.8	23	20	1.4	.82	1.2
25	e.64	e.61	e.45	e.33	e.92	e1.5	e5.0	25	18	1.4	.83	1.2
26	e.70	e.63	e.46	e.32	e.92	e1.4	e4.4	26	16	1.5	.71	1.3
27	e.72	e.52	e.47	e.30	e1.0	e1.5	e4.4	25	15	1.3	.52	1.1
28	e.74	e.52	e.43	e.31	e1.2	e1.5	e4.1	23	15	1.2	.60	1.2
29	e.76	e.56	e.40	e.33	e1.2	e1.5	e3.6	21	14	1.4	.61	1.3
30	e.80	e.61	e.37	e.35	--	e1.6	e3.0	19	12	1.5	.63	1.2
31	e.78	--	e.35	e.36	--	e1.6	--	18	--	1.2	.34	--
TOTAL	22.02	17.10	16.16	10.29	18.73	44.3	71.3	873.5	580	122.1	30.21	23.95
MEAN	.71	.57	.52	.33	.65	1.43	2.38	28.2	19.3	3.94	.97	.80
MAX	1.1	.70	.62	.40	1.2	1.8	5.0	56	30	11	1.5	1.4
MIN	.54	.47	.35	.27	.29	1.1	1.6	3.9	11	1.2	.34	.27
AC-FT	44	34	32	20	37	88	141	1730	1150	242	60	48

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1996, BY WATER YEAR (WY)

MEAN	.83	.54	.47	.46	.45	.52	1.61	10.7	13.8	5.55	1.55	1.09
MAX	2.00	1.35	1.03	1.46	1.30	1.43	4.14	34.8	45.1	22.7	3.65	2.65
(WY)	1971	1971	1993	1993	1993	1996	1971	1984	1983	1984	1984	1984
MIN	.30	.26	.12	.11	.11	.26	.32	1.69	1.07	1.05	.62	.35
(WY)	1984	1995	1977	1977	1977	1977	1973	1977	1977	1976	1994	1978

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1971 - 1996

ANNUAL TOTAL	2055.05		1829.66									
ANNUAL MEAN	5.63		5.00							3.14		
HIGHEST ANNUAL MEAN										7.22		
LOWEST ANNUAL MEAN										.83		
HIGHEST DAILY MEAN	49	Jun 18		e56	May 15		95			May 25	1984	
LOWEST DAILY MEAN	e.23	Jan 1		e,a.27	Jan 6		.10			Jan 13	1977	
ANNUAL SEVEN-DAY MINIMUM	.24	Jan 1		.29	Jan 1		.11			Jan 9	1977	
INSTANTANEOUS PEAK FLOW				63	May 19		106			May 24	1984	
INSTANTANEOUS PEAK STAGE				2.47	May 19		b3.13			May 24	1984	
ANNUAL RUNOFF (AC-FT)	4080		3630				2270					
10 PERCENT EXCEEDS	21		19				7.4					
50 PERCENT EXCEEDS	.82		1.0				.80					
90 PERCENT EXCEEDS	.36		.35				.32					

e-Estimated.

a-Also occurred Sep 10.

b-Maximum gage height, 3.97 ft, Mar 12, and Apr 10-16, 1987, backwater from ice.

## 09026500 ST. LOUIS CREEK NEAR FRASER, CO

LOCATION.--Lat 39°54'36", long 105°52'40", in SE<sup>1/4</sup>SW<sup>1/4</sup> sec.34, T.1 S., R.76 W., Grand County, Hydrologic Unit 14010001, on left bank 300 ft downstream from West St. Louis Creek and 4.1 mi southwest of Fraser.

DRAINAGE AREA.--32.9 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1933 to current year. Prior to August 1934, monthly discharge only, published in WSP 1313. Records for May 1956 to September 1959, equivalent to earlier records if diversion to Moffat water tunnel is added to flow past station.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 8,980.17 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are poor. Transmountain diversions upstream from station to Moffat water tunnel not known since 1959. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	e24	e17	5.9	e8.8	8.9	e11	8.2	45	130	15	13
2	16	e23	e18	5.9	e8.4	8.7	e12	9.3	43	74	15	13
3	14	e21	e17	6.2	e8.1	8.7	e12	13	43	47	15	13
4	12	e22	e17	6.3	e8.4	8.4	e13	19	45	45	15	13
5	12	e23	e16	7.0	e8.8	8.0	e14	30	57	54	15	13
6	13	e23	e15	7.1	e9.0	7.8	e13	36	108	111	15	17
7	15	e23	e15	7.1	e9.2	e7.0	e13	40	103	111	23	15
8	18	e22	e14	7.1	e9.2	7.4	e14	48	83	84	25	14
9	18	e21	e14	7.5	9.1	7.4	e15	57	97	31	24	13
10	18	e19	e14	7.4	8.9	7.5	e16	57	126	35	21	13
11	19	e17	e15	e7.6	e8.4	7.7	e15	60	157	44	12	13
12	31	e18	e15	e7.6	e8.0	7.5	e14	72	170	42	12	15
13	56	e20	e15	e7.8	e8.0	7.4	e14	87	210	51	13	17
14	38	e21	e13	e8.0	e8.0	7.4	e13	102	199	65	13	16
15	34	e21	e12	e8.2	7.9	8.0	e12	121	252	27	13	17
16	34	e20	e11	e8.6	8.1	7.8	e12	153	278	16	13	21
17	e33	e20	e9.8	e9.0	8.6	7.7	e10	191	289	19	13	20
18	e31	e20	e9.0	e8.4	8.7	e7.6	8.9	201	336	20	13	21
19	e31	e20	e8.0	e8.0	8.7	e7.2	12	237	320	19	14	22
20	e30	e20	e7.4	e8.4	8.7	e7.0	13	221	314	17	15	22
21	e27	e20	e6.8	e9.0	8.7	e7.4	10	156	365	17	14	22
22	e27	e19	e6.4	e9.0	8.6	e7.6	12	111	411	16	14	24
23	e25	e19	e5.8	e9.0	e8.6	e7.8	7.7	86	301	16	14	25
24	e24	e20	e6.0	e8.8	e8.8	e7.2	9.3	68	253	16	13	26
25	e23	e18	e6.2	e8.8	9.5	e6.8	11	82	225	16	13	25
26	e23	e15	e6.4	e8.4	9.0	e7.0	9.7	110	208	15	13	24
27	e23	e14	e6.6	e8.2	9.0	e7.4	9.4	97	207	15	14	22
28	e24	e15	6.6	e9.4	8.7	e7.8	8.7	77	194	15	14	24
29	e24	e16	6.6	e9.4	8.8	e8.0	13	51	173	16	14	24
30	e25	e16	5.9	e9.2	---	e9.0	8.2	48	166	16	13	23
31	e25	---	5.9	e9.2	---	e10	---	45	---	16	13	---
TOTAL	760	590	341.4	247.5	250.7	241.1	355.9	2693.5	5778	1216	463	560
MEAN	24.5	19.7	11.0	7.98	8.64	7.78	11.9	86.9	193	39.2	14.9	18.7
MAX	56	24	18	9.4	9.5	10	16	237	411	130	25	26
MIN	12	14	5.8	5.9	7.9	6.8	7.7	8.2	43	15	12	13
AC-FT	1510	1170	677	491	497	478	706	5340	11460	2410	918	1110

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1996, BY WATER YEAR (WY)

MEAN	11.9	9.44	7.63	6.83	6.30	6.38	9.55	37.9	116	67.8	24.4	14.7
MAX	31.4	19.7	14.3	12.0	11.0	12.0	26.2	102	257	250	70.1	34.1
(WY)	1962	1996	1946	1946	1946	1946	1960	1936	1952	1995	1945	1938
MIN	2.63	2.90	2.28	2.00	2.07	2.35	3.41	8.62	21.6	16.2	11.3	4.39
(WY)	1965	1967	1968	1961	1968	1968	1970	1968	1989	1994	1963	1963

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1934 - 1996
ANNUAL TOTAL	18983.6	13497.1	
ANNUAL MEAN	52.0	36.9	26.6
HIGHEST ANNUAL MEAN			48.9
LOWEST ANNUAL MEAN			9.98
HIGHEST DAILY MEAN	418	Jun 18	418 Jun 18 1995
LOWEST DAILY MEAN	e,a 3.8	Jan 31	b 1.8 Jan 25 1968
ANNUAL SEVEN-DAY MINIMUM	3.9	Jan 26	1.8 Jan 24 1968
INSTANTANEOUS PEAK FLOW		499 Jun 21	558 Jun 17 1995
INSTANTANEOUS PEAK STAGE		2.72 Jun 21	c 2.80 Jun 17 1995
ANNUAL RUNOFF (AC-FT)	37650	26770	19280
10 PERCENT EXCEEDS	230	98	63
50 PERCENT EXCEEDS	15	15	10
90 PERCENT EXCEEDS	4.0	7.6	4.7

e-Estimated.

a-Also occurred Feb 1.

b-Also occurred Jan 26-30, Feb 1, 2, and Feb 14.

c-Maximum gage height, 3.21 ft, Jun 10, 1952, backwater from log on control.

## FRASER RIVER BASIN

**09027100 FRASER RIVER AT TABERNASH, CO**  
**WATER-QUALITY RECORDS**

LOCATION.--Lat 39°59'25", long 105°49'44", SE<sup>1/4</sup>NW<sup>1/4</sup> sec.6, T.1 S., R.75 W., Grand County, Hydrologic Unit 14010001, on right bank approximately 100 ft upstream from the bridge over the Fraser River.

DRAINAGE AREA.--116 mi<sup>2</sup>.

REVISED RECORDS.--WDR CO-93-2: Drainage area.

PERIOD OF RECORD.--August 1990 to current year.

REMARKS.--Nutrient analysis based on low-level methods.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	CHLO- RIDE, DIS- SOLVED (MG/L) AS CL
FEB 28...	1130	20	107	7.6	0.0	8.4	5.4
MAR 21...	1018	22	124	7.6	0.0	9.3	9.5
APR 30...	1027	58	114	8.5	1.5	10.6	9.8
MAY 17...	1045	616	53	7.9	5.0	9.2	2.7
JUN 28...	1052	469	46	8.1	7.0	9.1	1.1
JUL 30...	1216	47	76	8.2	15.0	7.7	4.2
SEP 09...	1019	27	86	8.6	9.5	9.3	3.5
30...	1429	70	75	8.4	10.5	8.9	3.1

DATE	RESIDUE TOTAL AT 105 DEG. C,	NITRO- GEN, NO <sub>2</sub> +NO <sub>3</sub>	NITRO- GEN, AMMONIA	NITRO- GEN, PHORUS	PHOS- PHORUS ORTHO,	
	SUS- PENDED (MG/L)	DIS- SOLVED (MG/L) AS N)	DIS- SOLVED (MG/L) AS N)	DIS- SOLVED (MG/L) AS P)	DIS- SOLVED (MG/L) AS P)	
FEB 28...	<1	0.002	0.570	0.503	0.130	0.120
MAR 21...	7	0.007	0.580	0.630	0.170	0.160
APR 30...	6	<0.001	0.210	0.144	0.064	0.052
MAY 17...	23	<0.001	0.043	<0.002	0.013	0.010
JUN 28...	5	0.003	0.022	<0.002	0.010	0.005
JUL 30...	4	<0.001	0.006	<0.002	0.047	0.019
SEP 09...	2	0.006	0.029	<0.002	0.062	0.044
30...	4	0.003	0.042	<0.002	0.026	0.016

## 09032000 RANCH CREEK NEAR FRASER, CO

LOCATION (REVISED).--Lat 39°57'00", long 105°45'54", in NW<sup>1/4</sup>NE<sup>1/4</sup> sec.22, T.1 S., R.75 W., Grand County, Hydrologic Unit 14010001, on left bank 650 ft downstream from Middle Fork and 2.7 mi east of Fraser.

DRAINAGE AREA.--19.9 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1934 to current year. Records for May 26, 1937, to September 1959, equivalent to earlier records if diversion to Moffat water tunnel is added to flow past station.

REVISED RECORDS.--WSP 1243: 1935.

GAGE.--Water-stage recorder. Elevation of gage is 8,685 ft above sea level, from topographic map. Prior to Oct. 5, 1995, at site 200 ft upstream, at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversion upstream from station for irrigation of hay meadows along Fraser River. Transmountain diversion upstream from station to Moffat water tunnel not known since 1959. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	3.8	e2.8	e1.9	e1.9	e2.0	e2.3	4.6	32	47	4.8	3.0
2	3.5	e3.6	e2.7	e1.9	e1.8	e2.2	e2.5	6.7	31	35	5.3	3.0
3	3.2	e3.5	e2.7	e2.0	e1.7	e2.3	e2.4	8.7	29	24	5.5	2.9
4	3.8	e3.6	e2.6	e2.0	e1.8	e2.4	2.4	13	21	21	4.6	2.9
5	4.0	e3.6	2.6	e1.8	e2.0	e2.5	2.4	19	37	23	4.9	2.9
6	4.3	e3.7	2.6	e1.6	e2.2	e2.4	2.6	24	61	47	4.7	3.8
7	4.3	3.9	2.8	e1.8	e2.2	e2.3	2.8	28	53	43	4.6	3.3
8	4.3	3.9	2.7	e1.9	e2.2	e2.2	3.2	33	59	29	4.6	3.0
9	4.1	e3.6	2.7	e2.0	e2.1	e2.1	4.3	38	66	14	4.7	2.9
10	4.0	e3.4	2.8	e2.0	e2.1	e2.3	4.7	40	68	11	4.5	2.8
11	4.1	e3.2	3.1	e2.1	e2.0	e2.4	4.4	46	72	32	4.4	2.7
12	4.4	e3.3	3.1	e2.3	e2.0	e2.5	3.9	58	85	29	4.3	2.8
13	4.7	e3.3	3.0	e2.4	e2.0	e2.5	3.8	70	101	17	4.2	3.0
14	4.4	e3.4	e2.8	e2.4	e2.1	e2.5	3.5	81	93	20	4.2	3.3
15	4.3	e3.3	e2.7	e2.5	e2.2	e2.4	3.4	95	137	12	4.0	4.6
16	4.2	e3.3	e2.6	e2.5	e2.2	e2.4	3.6	123	169	5.1	4.0	3.3
17	4.1	e3.4	e2.5	e2.4	e2.1	e2.3	3.9	147	174	5.3	4.1	3.2
18	3.9	e3.3	e2.4	e2.4	e2.1	e2.2	3.7	165	126	6.0	4.2	3.5
19	3.8	e3.3	e2.2	e2.2	e2.2	e2.1	3.6	187	78	5.7	4.6	3.8
20	4.2	e3.2	e2.1	e2.0	e2.2	e2.0	3.3	176	75	5.4	4.5	3.9
21	4.1	e3.1	e2.0	e2.2	e2.2	e2.1	3.1	141	94	5.4	4.1	3.8
22	3.8	e2.9	e1.9	e2.3	e2.3	e2.2	3.0	85	144	5.7	4.1	4.3
23	3.7	e2.8	e1.7	e2.3	e2.3	e2.3	3.1	49	125	5.5	4.0	4.5
24	4.1	e2.8	e1.8	e2.2	e2.2	e2.1	4.6	49	113	5.5	3.8	4.8
25	4.4	e2.8	e2.0	e2.2	e2.2	e1.8	6.1	74	103	5.3	3.6	11
26	4.2	e2.7	e2.2	e2.1	e2.1	e1.9	4.9	85	96	5.4	3.5	11
27	3.5	e2.6	e2.2	e2.0	e2.0	e1.9	5.0	72	91	5.3	3.5	9.5
28	3.5	e2.4	e2.1	e2.0	e2.0	e2.0	4.9	54	67	5.3	3.5	10
29	3.6	e2.6	e2.0	e2.1	e1.9	e2.0	4.3	36	58	5.7	3.4	11
30	3.6	e2.7	e2.0	e2.1	---	e2.1	4.2	34	50	5.6	3.2	11
31	3.7	---	e2.0	---	e2.0	---	e2.2	---	32	---	5.1	3.1
TOTAL	123.5	97.0	75.4	65.6	60.3	68.6	109.9	2074.0	2508	491.3	130.5	145.5
MEAN	3.98	3.23	2.43	2.12	2.08	2.21	3.66	66.9	83.6	15.8	4.21	4.85
MAX	4.7	3.9	3.1	2.5	2.3	2.5	6.1	187	174	47	5.5	11
MIN	3.2	2.4	1.7	1.6	1.7	1.8	2.3	4.6	21	5.1	3.1	2.7
AC-FT	245	192	150	130	120	136	218	4110	4970	974	259	289

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 1996, BY WATER YEAR (WY)

MEAN	4.79	4.25	3.45	3.04	2.71	2.62	5.34	30.8	76.1	26.1	7.55	5.03
MAX	19.6	14.6	8.11	5.63	4.65	5.34	17.4	99.4	192	136	27.3	13.8
(WY)	1962	1962	1962	1962	1966	1950	1946	1936	1983	1995	1945	1945
MIN	.98	1.09	.87	.89	.74	.65	1.61	3.69	2.68	2.40	1.52	.98
(WY)	1969	1965	1965	1964	1964	1964	1961	1954	1966	1966	1960	1960

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1935 - 1996
ANNUAL TOTAL	10202.5	5949.6	
ANNUAL MEAN	28.0	16.3	
HIGHEST ANNUAL MEAN			31.4
LOWEST ANNUAL MEAN			2.55
HIGHEST DAILY MEAN	271	Jun 19	1983
LOWEST DAILY MEAN	<sup>a</sup> 1.4	Feb 20	1957
ANNUAL SEVEN-DAY MINIMUM	1.4	Mar 1	
INSTANTANEOUS PEAK FLOW		270	
INSTANTANEOUS PEAK STAGE		6.11	
ANNUAL RUNOFF (AC-FT)	20240	11800	3.96
10 PERCENT EXCEEDS	139	58	Jun 27 1983
50 PERCENT EXCEEDS	3.5	3.5	4.1
90 PERCENT EXCEEDS	1.6	2.0	1.8

e-Estimated.

a-Also occurred Mar 1-14.

b-Also occurred Oct 6, 1960, and Sep 24-26, 1988.

c-Maximum gage height, 6.11 ft, Jun 15, 1996, present site and datum.

## FRASER RIVER BASIN

## 09032100 CABIN CREEK NEAR FRASER, CO

LOCATION.--Lat 39°59'09", long 105°44'40", in NW<sup>1/4</sup>SE<sup>1/4</sup> sec.2, T.1 S., R.75 W., Grand County, Hydrologic Unit 14010001, on right bank 200 ft downstream from concrete diversion dam, 2.7 mi upstream from mouth and 4.6 mi northeast of Fraser.

DRAINAGE AREA.--4.87 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 9,560 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Transmountain diversion upstream from station to Moffat water tunnel, amount unknown. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	e3.5	e2.8	e1.6	e1.2	e1.1	e1.4	2.5	22	26	5.4	2.0
2	1.5	e3.2	e2.7	e1.6	e1.2	e1.1	e1.4	2.3	23	24	5.2	2.0
3	1.4	e3.1	e2.7	e1.5	e1.1	e1.1	e1.5	2.8	17	16	5.2	1.9
4	1.5	e3.2	e2.7	e1.4	e1.0	e1.0	e1.6	4.9	15	11	4.9	1.9
5	1.4	e3.4	e2.8	e1.3	e1.1	e1.1	e1.7	e8.0	26	11	4.7	2.1
6	1.4	e3.3	e2.8	e1.1	e1.2	e1.1	e1.6	e10	26	15	4.4	3.2
7	2.0	e3.2	e2.6	e1.2	e1.2	e1.2	e2.1	e10	27	18	4.3	2.4
8	4.0	e3.3	e2.5	e1.3	e1.2	e1.2	e2.5	12	31	17	4.3	2.0
9	3.8	e3.5	e2.5	e1.5	e1.2	e1.1	e3.1	15	31	16	4.3	1.9
10	3.6	e3.4	e2.6	e1.6	e1.2	e1.1	e3.5	16	36	15	3.9	1.8
11	3.7	e3.0	e2.7	e1.5	e1.1	e1.1	e3.5	19	51	14	3.7	1.7
12	4.1	e3.1	e2.8	e1.5	e1.1	e1.2	e3.4	25	56	13	3.5	1.8
13	4.2	e3.1	e2.6	e1.6	e1.2	e1.2	e3.4	29	57	12	3.4	2.0
14	4.8	e3.2	e2.5	e1.7	e1.2	e1.1	e3.3	31	55	11	3.3	2.6
15	4.3	e3.2	e2.3	e1.6	e1.2	e1.2	e3.3	37	64	11	3.3	3.8
16	3.8	e3.1	e2.3	e1.5	e1.1	e1.2	e3.2	48	58	11	3.2	2.4
17	3.6	e3.0	e2.2	e1.6	e1.1	e1.2	e3.2	48	55	11	3.0	2.4
18	3.3	e2.9	e2.1	e1.6	e1.2	e1.2	e3.1	49	55	11	3.1	2.9
19	3.1	e2.8	e2.1	e1.5	e1.1	e1.3	e2.8	61	54	10	3.3	3.2
20	4.2	e2.8	e2.0	e1.4	e1.1	e1.3	e2.5	52	53	9.2	3.1	3.1
21	3.3	e2.8	e2.0	e1.4	e1.1	e1.2	e2.6	44	55	8.6	2.9	3.3
22	3.2	e2.9	e1.9	e1.4	e1.2	e1.2	e2.5	46	57	8.1	2.7	4.7
23	e3.1	e2.9	e1.9	e1.4	e1.2	e1.2	e2.8	31	50	7.7	2.6	5.9
24	e3.1	e2.7	e1.8	e1.3	e1.1	e1.3	e3.2	14	47	7.3	2.5	5.9
25	e3.1	e2.7	e1.8	e1.3	e1.2	e1.3	e3.5	32	42	7.0	2.4	5.5
26	e3.2	e2.7	e1.8	e1.3	e1.1	e1.3	e3.2	34	39	6.7	2.3	5.2
27	e3.5	e2.5	e1.8	e1.3	e1.0	e1.3	e3.2	24	38	6.4	2.4	4.8
28	e3.4	e2.7	e1.7	e1.4	e1.1	e1.3	e2.9	20	34	6.3	2.6	5.0
29	e3.5	e2.9	e1.6	e1.4	1.1	e1.4	e2.7	20	30	7.7	2.6	6.9
30	e3.7	e2.8	e1.6	e1.3	--	e1.4	e2.6	23	28	7.1	2.1	6.9
31	e3.8	--	e1.7	e1.3	--	e1.4	--	21	--	5.9	2.1	--
TOTAL	98.1	90.9	69.9	44.4	33.1	37.4	81.3	791.5	1232	361.0	106.7	101.2
MEAN	3.16	3.03	2.25	1.43	1.14	1.21	2.71	25.5	41.1	11.6	3.44	3.37
MAX	4.8	3.5	2.8	1.7	1.2	1.4	3.5	61	64	26	5.4	6.9
MIN	1.4	2.5	1.6	1.1	1.0	1.0	1.4	2.3	15	5.9	2.1	1.7
AC-FT	195	180	139	88	66	74	161	1570	2440	716	212	201

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1996, BY WATER YEAR (WY)

MEAN	2.50	2.04	1.49	1.20	1.02	1.07	1.65	9.99	31.2	14.1	4.43	2.96
(WY)	1986	1996	1996	1987	1992	1992	1994	1996	1984	1995	1984	1984
MAX	4.54	3.03	2.25	1.74	1.40	1.40	2.74	25.5	58.3	46.6	8.05	5.12
(WY)	1990	1985	1985	1985	1985	1985	1985	1985	1989	1994	1.91	1.48
MIN	1.67	.48	.47	.59	.30	.12	.079	1.60	9.99	4.91	1.91	1.48

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR				FOR 1996 WATER YEAR				WATER YEARS 1984 - 1996			
ANNUAL TOTAL	3330.25				3047.5				11.0			
ANNUAL MEAN	9.12				8.33				3.77			
HIGHEST ANNUAL MEAN												
LOWEST ANNUAL MEAN												
HIGHEST DAILY MEAN	89				Jun 18				96			
LOWEST DAILY MEAN	.67				Aug 30				e,a,1.0			
ANNUAL SEVEN-DAY MINIMUM	.80				Feb 28				2.7			
INSTANTANEOUS PEAK FLOW									1.1			
INSTANTANEOUS PEAK STAGE									Jun 15			
ANNUAL RUNOFF (AC-FT)	6610				6040				2.15			
10 PERCENT EXCEEDS	42				27				15			
50 PERCENT EXCEEDS	1.9				2.9				2.0			
90 PERCENT EXCEEDS	.90				1.2				1.0			

e-Estimated.

a-Also occurred Feb 27 and Mar 4.

b-Maximum gage height, 2.39 ft, Jun 17, 1995.

**09034250 COLORADO RIVER AT WINDY GAP NEAR GRANBY, CO**

LOCATION.--Lat 40°06'30", long 106°00'13" in NW<sup>1/4</sup> sec.27, T.2 N., R.77 W., Grand County, Hydrologic Unit 14010001, on right bank 300 ft downstream from county highway bridge, 1.1 mi downstream from Windy Gap diversion dam, 2.4 mi downstream from mouth of Fraser River, and 3.8 mi northwest of Granby.

DRAINAGE AREA.--789 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--October 1981 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 7,790 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, and diversions for irrigation. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	129	175	130	e90	e85	e89	626	875	1010	1280	209	98
2	116	156	127	e88	e86	e84	655	766	960	1140	212	102
3	108	123	118	e90	e80	e85	670	592	927	818	184	105
4	125	119	122	e89	e84	e87	693	753	777	572	185	83
5	120	126	129	e91	e93	e100	714	989	819	583	179	78
6	115	136	128	e92	e80	e95	721	1100	1120	764	157	102
7	117	142	116	e95	e86	e110	753	1170	1180	1020	150	99
8	126	143	124	e92	e87	e115	882	1190	1100	944	150	82
9	117	148	113	e97	e84	e115	1130	1400	1150	784	159	80
10	119	138	e110	e95	e85	e120	1210	1390	1180	622	148	76
11	117	108	e95	e91	e82	e110	1140	1370	1200	500	141	80
12	129	121	e85	e90	e85	e120	1020	1510	1180	469	127	83
13	152	173	e82	e96	e80	e150	981	1780	1390	446	119	92
14	121	167	e88	e88	e82	218	842	1940	1630	473	108	106
15	111	163	e75	e87	e79	194	799	1970	1670	443	118	114
16	103	141	e73	e96	e80	199	846	2270	2030	382	105	119
17	124	159	e68	e93	e82	194	928	2620	1920	401	116	125
18	123	154	e65	e88	e87	197	902	2560	2120	386	115	121
19	114	141	e40	e96	e87	214	813	2610	2480	409	128	145
20	96	149	e38	e91	e88	252	776	2570	3250	397	125	156
21	107	144	e90	e87	e89	270	770	1960	2770	347	124	136
22	130	143	e65	e86	e92	304	722	1240	3540	316	116	133
23	115	144	e63	e86	e83	288	721	1090	3690	315	125	141
24	105	125	e66	e87	e80	303	962	988	2380	325	101	158
25	126	139	e70	e91	e86	292	1270	1320	2540	280	103	169
26	138	136	e65	e86	e81	306	1110	1570	2040	313	107	228
27	147	136	e75	e91	e82	358	1030	1630	2290	297	104	154
28	130	111	e75	e86	e84	466	1010	1370	2060	289	110	180
29	141	118	e76	e83	e86	549	878	1270	1820	268	125	199
30	149	141	e88	e89	---	565	842	1170	1350	290	106	187
31	148	---	e88	e84	---	580	---	1020	---	279	113	---
TOTAL	3818	4219	2747	2791	2445	7129	26416	46053	53573	16152	4169	3731
MEAN	123	141	88.6	90.0	84.3	230	881	1486	1786	521	134	124
MAX	152	175	130	97	93	580	1270	2620	3690	1280	212	228
MIN	96	108	38	83	79	84	626	592	777	268	101	76
AC-FT	7570	8370	5450	5540	4850	14140	52400	91350	106300	32040	8270	7400

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1996, BY WATER YEAR (WY)

MEAN	98.4	103	82.1	78.3	77.9	110	311	664	915	577	169	104
MAX	152	188	120	110	110	260	881	2326	2997	2096	403	202
(WY)	1985	1986	1985	1985	1985	1984	1996	1984	1984	1983	1983	1984
MIN	59.9	76.5	64.3	59.0	63.5	75.8	132	138	186	172	106	65.4
(WY)	1982	1982	1982	1989	1982	1983	1983	1992	1990	1989	1989	1989

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1982 - 1996
ANNUAL TOTAL	124401	173243	
ANNUAL MEAN	341	473	275
HIGHEST ANNUAL MEAN			726 1984
LOWEST ANNUAL MEAN			122 1989
HIGHEST DAILY MEAN	2480	Jun 18	4930 May 25 1984
LOWEST DAILY MEAN	e38	Dec 20	38 Dec 20 1995
ANNUAL SEVEN-DAY MINIMUM	61	Dec 18	51 Oct 1 1981
INSTANTANEOUS PEAK FLOW		4650 Jun 23	5260 May 25 1984
INSTANTANEOUS PEAK STAGE		7.01 Jun 23	7.34 May 25 1984
ANNUAL RUNOFF (AC-FT)	246700	343600	199100
10 PERCENT EXCEEDS	1300	1270	641
50 PERCENT EXCEEDS	136	141	109
90 PERCENT EXCEEDS	72	84	69

e-Estimated.

## COLORADO RIVER MAIN STEM

## 09034250 COLORADO RIVER AT WINDY GAP NEAR GRANBY, CO--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1994 to current year.

REMARKS.--Samples collected near gage, except winter sample, which is collected near Windy Gap Reservoir outflow.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET DUCT- PER SECOND	SPE- CIFIC CON- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	
OCT 26...	1500	94		131	8.3	3.5	10.3	51	16	2.7
JAN 11...	1500	91		128	--	0.0	9.7	49	15	2.8
APR 23...	1430	696		94	8.9	6.0	10.8	38	12	2.0
AUG 12...	1330	115		133	8.6	17.0	8.1	51	16	2.7
<hr/>										
DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY SOLVED (MG/L AS CACO3)	SULFATE LAB (MG/L AS CACO3)	CHLO- RIDE, DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	
OCT 26...	5.7	0.3	1.3	58	3.8	2.5	0.2	13	80	
JAN 11...	6.0	0.4	1.3	56	3.6	2.3	0.3	13	79	
APR 23...	4.3	0.3	1.0	41	4.7	1.6	0.1	8.3	59	
AUG 12...	5.9	0.4	1.2	60	3.9	2.3	0.2	11	80	
<hr/>										
DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	
OCT 26...	0.11	20.4	3	0.05	<0.20	<0.20	0.07	0.07	0.06	
JAN 11...	0.11	19.5	1	0.26	0.40	0.30	0.04	0.04		
APR 23...	0.08	110	6	<0.05	0.20	<0.20	0.01	<0.01		
AUG 12...	0.11	24.8	3	0.07	<0.20	<0.20	0.03	0.03		
<hr/>										
DATE	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMİUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMİUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	
OCT 26...	<1	<1	<1	<100	<10	<1	<1	<1	<1	
JAN 11...	<1	--	<1	<100	<10	<1	<1	5	<1	
APR 23...	<1	<1	<1	13	<0.5	<1	<1	<1	<1	
AUG 12...	<1	<1	<1	13	1	<1	<1	<1	<1	

**09034250 COLORADO RIVER AT WINDY GAP NEAR GRANBY, CO--Continued**

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## WILLIAMS FORK BASIN

**09034900 BOBTAIL CREEK NEAR JONES PASS, CO**

LOCATION.--Lat 39°45'37", long 105°54'21", in sec.28, T.3 S., R.76 W., Grand County, Hydrologic Unit 14010001, on left bank 320 ft upstream from diversion dam and 0.4 mi south of entrance to August P. Gumlick Tunnel.

DRAINAGE AREA.--5.49 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 10,430 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. No diversion upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	e3.0	e1.6	e.96	e.88	e.87	e.86	e1.1	23	59	9.9	3.5
2	5.0	e3.1	e1.5	e.97	e.80	e.86	e.86	e1.6	25	55	9.5	3.4
3	4.9	e2.3	e1.4	e.96	e.74	e.87	e.85	e2.0	33	54	9.2	3.2
4	5.6	e2.5	e1.5	e.94	e.83	e.86	e.83	e3.5	39	54	8.6	3.1
5	6.9	e2.6	e1.5	e.88	e.87	e.89	e.84	7.7	59	56	8.0	3.5
6	6.3	e2.7	e1.5	e.84	e.88	e.88	e.84	12	77	53	7.4	4.3
7	6.6	e2.7	e1.4	e.89	e.87	e.82	e.86	e14	85	48	7.1	3.4
8	4.4	e2.7	e1.4	e.90	e.88	e.78	e.86	e17	95	43	6.7	3.1
9	5.8	e2.8	e1.3	e.90	e.87	e.84	e.89	e20	101	37	6.6	2.9
10	4.6	e2.6	e1.2	e.90	e.86	e.88	e.95	e21	98	38	6.3	2.8
11	5.1	e2.4	e1.3	e.91	e.84	e.91	e.93	e22	97	35	6.0	2.8
12	4.9	e2.7	e1.3	e.91	e.82	e.92	e.88	e27	92	32	5.6	4.1
13	4.6	e2.6	e1.2	e.90	e.81	e.90	e.86	e32	98	29	5.5	4.5
14	6.6	e2.5	e1.1	e.90	e.87	e.85	e.84	e36	90	27	5.3	4.0
15	5.6	e2.4	e1.1	e.91	e.88	e.84	e.85	e40	94	25	5.4	4.7
16	4.8	e2.4	e1.2	e.90	e.88	e.86	e.87	45	94	24	5.3	3.7
17	4.7	e2.3	e1.1	e.89	e.90	e.85	e.86	49	94	24	5.1	3.6
18	4.6	e2.1	e1.1	e.89	e.91	e.86	e.84	45	95	26	5.2	3.7
19	3.4	e2.1	e1.0	e.86	e.90	e.87	e.83	56	94	23	6.0	4.3
20	e3.3	e2.0	e1.0	e.88	e.91	e.86	e.84	51	94	22	5.4	4.0
21	e3.4	e1.9	e1.0	e.90	e.88	e.83	e.82	45	112	20	5.0	4.4
22	3.6	e2.0	e1.0	e.90	e.88	e.81	e.90	54	136	19	5.3	4.9
23	e3.4	e1.9	e1.1	e.90	e.86	e.78	e.95	60	100	17	5.1	5.0
24	3.7	e1.9	e1.0	e.88	e.83	e.79	e.98	58	89	16	4.8	5.6
25	4.2	e1.9	e.98	e.88	e.78	e.83	e1.1	58	76	15	4.4	4.9
26	4.6	e1.8	e.98	e.85	e.82	e.82	e1.1	48	75	13	4.4	4.1
27	4.7	e1.7	e.96	e.82	e.89	e.80	e1.1	29	81	12	4.5	5.1
28	4.6	e1.5	e.96	e.81	e.88	e.76	e1.0	26	72	12	4.6	4.7
29	4.3	e1.6	e.96	e.88	e.88	e.79	e1.0	26	66	13	4.3	5.4
30	3.5	e1.6	e.95	e.94	---	e.82	e.97	27	64	11	4.0	5.1
31	e3.0	---	e.95	e.92	---	e.84	---	26	---	11	3.7	---
TOTAL	146.2	68.3	36.54	27.77	24.90	26.14	27.16	959.9	2448	923	184.2	121.8
MEAN	4.72	2.28	1.18	.90	.86	.84	.91	31.0	81.6	29.8	5.94	4.06
MAX	6.9	3.1	1.6	.97	.91	.92	1.1	60	136	59	9.9	5.6
MIN	3.0	1.5	.95	.81	.74	.76	.82	1.1	23	11	3.7	2.8
AC-FT	290	135	72	55	49	52	54	1900	4860	1830	365	242

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1996, BY WATER YEAR (WY)

MEAN	2.95	1.70	1.09	.87	.78	.77	1.46	14.6	57.0	30.6	9.54	4.60
MAX	5.49	3.33	1.79	1.24	1.15	1.21	4.30	31.0	82.0	75.5	25.5	9.74
(WY)	1985	1984	1983	1983	1995	1995	1969	1996	1986	1995	1983	1983
MIN	1.51	1.03	.78	.58	.48	.52	.68	1.57	27.3	7.08	4.90	2.35
(WY)	1981	1974	1977	1972	1972	1972	1973	1995	1966	1977	1977	1987

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1966 - 1996
ANNUAL TOTAL	5313.35	4993.91	
ANNUAL MEAN	14.6	13.6	10.5
HIGHEST ANNUAL MEAN			15.5
LOWEST ANNUAL MEAN			6.28
HIGHEST DAILY MEAN	135	Jul 12	146 Jun 25 1983
LOWEST DAILY MEAN	.47	May 13	.44 Feb 11 1972
ANNUAL SEVEN-DAY MINIMUM	.49	May 8	.46 Feb 11 1972
INSTANTANEOUS PEAK FLOW			290 Jun 28 1988
INSTANTANEOUS PEAK STAGE			a4.71 Jun 21 b5.19 Jun 28 1988
ANNUAL RUNOFF (AC-FT)	10540	9910	7610
10 PERCENT EXCEEDS	61	53	33
50 PERCENT EXCEEDS	2.0	2.8	1.9
90 PERCENT EXCEEDS	.92	.85	.70

e-Estimated.

a-Maximum gage height, 7.39 ft, May 8, backwater from ice.

b-Maximum gage height, 7.57 ft, May 15, 1984, backwater from ice.

## 09035500 WILLIAMS FORK BELOW STEELMAN CREEK, CO

LOCATION.--Lat 39°46'44", long 105°55'40", in sec.20, T.3 S., R.76 W., Grand County, Hydrologic Unit 14010001, on right bank 700 ft downstream from Steelman Creek and 6.5 mi southeast of Leal.

DRAINAGE AREA.--16.3 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1933 to September 1941, published as Williams River below Steelman Creek. October 1965 to current year. Monthly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder. Elevation of gage is 9,800 ft above sea level, from topographic map. Prior to July 21, 1933, nonrecording gage, and July 21, 1933, to Sept. 30, 1941, water-stage recorder at site 600 ft upstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Transmountain diversions upstream from station through August P. Gumlick Tunnel (station 09035000) since May 10, 1940. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	e7.4	e5.5	e3.8	e3.0	e3.0	e3.4	e5.1	67	157	21	5.3
2	13	e7.0	e5.3	e3.7	e2.9	e3.0	e3.5	e5.6	70	153	16	4.7
3	13	e5.8	e5.4	e3.8	e2.7	e3.1	e3.5	6.1	73	92	16	4.8
4	12	e6.0	e5.5	e3.8	e2.7	e3.2	e3.6	8.9	49	50	15	4.6
5	13	e6.4	e5.4	e3.5	e3.2	e3.4	e3.6	16	56	62	16	4.9
6	15	e6.2	e5.3	e3.2	e3.4	e3.3	e3.7	17	124	118	13	5.5
7	14	e6.1	e5.2	e3.5	e3.3	e3.1	e3.9	20	187	110	14	4.8
8	13	e6.2	e5.4	e3.7	e3.3	e2.9	e4.0	27	215	100	12	4.3
9	12	e6.2	e5.6	e3.8	e3.2	e3.1	e4.3	35	248	89	14	4.2
10	12	e6.0	e5.4	e4.0	e3.0	e3.4	e4.6	37	251	85	11	4.1
11	13	e5.4	e5.3	e3.8	e2.9	e3.5	e4.5	40	242	79	10	4.0
12	13	e6.3	e5.3	e3.7	e2.9	e3.3	e4.4	58	230	72	11	4.9
13	13	e6.2	e5.2	e3.7	e3.0	e3.2	e4.4	72	243	66	7.8	5.5
14	14	e6.2	e5.2	e3.7	e3.1	e3.1	e4.3	79	237	59	7.5	4.8
15	13	e6.0	e5.1	e3.8	e3.1	e2.9	e4.5	91	251	55	7.3	6.6
16	12	e5.9	e5.0	e3.7	e3.2	e2.9	e4.7	116	243	51	7.3	8.3
17	12	e6.0	e5.0	e3.7	e3.0	e2.8	e4.7	120	242	34	6.6	8.1
18	11	e6.2	e5.0	e3.7	e3.1	e2.7	e4.9	130	244	12	7.4	8.4
19	10	e6.2	e4.8	e3.6	e3.1	e2.7	e4.9	158	244	8.4	7.9	8.7
20	e9.4	e6.0	e4.6	e3.5	e3.1	e2.7	e4.7	143	249	7.9	8.3	8.6
21	e9.6	e6.1	e4.5	e3.4	e3.3	e2.8	e4.7	114	281	7.6	7.2	9.0
22	e9.9	e6.3	e4.3	e3.4	e3.3	e3.0	e4.7	129	358	13	7.4	9.8
23	e8.8	e6.0	e4.2	e3.4	e3.2	e3.2	e5.0	141	281	7.3	7.6	9.7
24	e9.0	e5.9	e4.3	e3.3	e3.0	e3.1	e5.8	128	238	13	7.0	11
25	e9.3	e5.9	e4.4	e3.3	e3.0	e3.1	e6.4	135	214	28	6.5	9.6
26	e9.4	e5.8	e4.2	e3.1	e2.8	e3.0	e6.0	103	200	28	6.1	9.1
27	e9.3	e5.0	e4.0	e3.3	e2.7	e2.8	e5.8	82	200	27	6.2	9.0
28	e9.3	e5.2	e4.0	e3.5	e2.8	e3.0	e5.6	71	193	25	6.2	9.6
29	e9.4	e5.8	e4.0	e3.4	e2.9	e3.1	e5.3	69	170	27	6.1	10
30	e8.2	e5.5	e4.0	e3.4	---	e3.1	e5.2	73	163	25	5.5	10
31	e7.6	---	e3.9	e3.2	---	e3.3	---	71	---	24	5.7	---
TOTAL	351.2	181.2	150.3	110.4	88.2	94.8	138.6	2300.7	6063	1685.2	300.6	211.9
MEAN	11.3	6.04	4.85	3.56	3.04	3.06	4.62	74.2	202	54.4	9.70	7.06
MAX	15	7.4	5.6	4.0	3.4	3.5	6.4	158	358	157	.21	11
MIN	7.6	5.0	3.9	3.1	2.7	2.7	3.4	5.1	49	7.3	5.5	4.0
AC-FT	697	359	298	219	175	188	275	4560	12030	3340	596	420

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1996, BY WATER YEAR (WY)

MEAN	5.39	3.38	2.33	1.94	1.88	1.92	3.77	30.9	116	60.0	12.1	7.13
MAX	16.3	8.07	4.85	4.30	3.90	4.99	10.6	89.2	213	200	44.5	18.4
(WY)	1985	1938	1996	1939	1939	1985	1992	1936	1938	1995	1983	1984
MIN	.98	.58	.39	.31	.30	.35	.61	5.45	15.5	4.85	.70	.70
(WY)	1967	1987	1987	1978	1978	1987	1973	1991	1976	1968	1979	1979

## SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1934 - 1996

ANNUAL TOTAL	14399.0		11676.1									
ANNUAL MEAN	39.4		31.9									
HIGHEST ANNUAL MEAN												
LOWEST ANNUAL MEAN												
HIGHEST DAILY MEAN	395	Jul 12		358	Jun 22							
LOWEST DAILY MEAN	2.2	Sep 17		e,b 2.7	Feb 3							
ANNUAL SEVEN-DAY MINIMUM	2.5	Mar 4		2.8	Mar 15							
INSTANTANEOUS PEAK FLOW				408	Jun 22							
INSTANTANEOUS PEAK STAGE				5.47	Jun 22							
ANNUAL RUNOFF (AC-FT)	28560		23160									
10 PERCENT EXCEEDS	160		117									
50 PERCENT EXCEEDS	6.0		6.0									
90 PERCENT EXCEEDS	2.5		3.1									

e-Estimated.

a-Includes diversions to August P. Gumlick Tunnel.

b-Also occurred Feb 4, 27, and Mar 18-20.

c-From rating curve extended above 250 ft<sup>3</sup>/s.

d-Maximum gage height, 6.96 ft, May 15, 1984, backwater from ice.

## WILLIAMS FORK BASIN

**09035700 WILLIAMS FORK ABOVE DARLING CREEK, NEAR LEAL, CO**

LOCATION.--Lat 39°47'50", long 106°01'32", in NW<sup>1/4</sup>/NW<sup>1/4</sup> sec.16, T.3 S., R.77 W., Grand County, Hydrologic Unit 14010001, on left bank 0.3 mi upstream from Darling Creek and 1.4 mi southeast of Leal.

DRAINAGE AREA.--35.0 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1965 to current year.

REVISED RECORDS.--WDR CO-93-2: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 8,940 ft above sea level, from topographic map. Prior to Oct. 1, 1972, and May 6, 1981 to Jan. 31, 1983, at site 300 ft upstream at different datum. Prior to Oct. 20, 1992, and Oct. 1, 1972 to May 5, 1981, at site 0.6 mi upstream at different datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Transmountain diversion upstream from station through August P. Gumlick Tunnel (station 09035000). Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	e23	e20	e14	e12	e14	e22	e26	151	232	52	16
2	37	e22	e19	e14	e13	e14	e22	e24	153	221	44	15
3	36	e21	e18	e14	e13	e15	e21	e22	160	179	43	15
4	36	e22	e17	e14	e13	e15	e22	34	145	138	42	15
5	36	e23	e18	e14	e13	e15	e22	49	156	144	42	16
6	37	e23	e17	e14	e13	e15	e23	60	229	187	37	19
7	39	e22	e17	e14	e13	e15	e23	68	299	174	39	17
8	37	e22	e17	e14	e13	e15	e24	80	325	161	35	15
9	36	e21	e17	e14	e13	e15	e25	94	370	152	36	15
10	35	e22	e16	e14	e13	e16	e25	99	380	148	32	14
11	36	e23	e16	e13	e13	e16	e26	98	381	138	29	14
12	38	e23	e15	e14	e14	e17	e28	131	368	130	30	16
13	39	e22	e15	e13	e14	e17	e30	149	376	121	25	18
14	39	e22	e16	e13	e14	e17	e29	162	372	115	24	17
15	37	e21	e16	e13	e14	e18	e28	182	391	110	23	19
16	37	e21	e15	e13	e14	e17	e27	224	343	104	23	22
17	36	e20	e15	e13	e13	e18	e25	242	331	89	21	21
18	35	e20	e15	e13	e14	e18	e25	251	336	61	23	22
19	36	e20	e15	e13	e14	e19	e25	286	332	51	24	24
20	36	e19	e14	e13	e14	e20	e25	271	328	46	25	24
21	38	e19	e14	e13	e13	e20	e24	223	374	44	22	24
22	34	e19	e14	e13	e14	e20	e25	233	498	53	21	26
23	33	e18	e14	e13	e14	e20	e25	244	380	40	21	27
24	33	e18	e14	e13	e14	e20	e26	233	335	47	20	30
25	27	e17	e14	e13	e14	e21	e27	252	307	67	18	28
26	24	e18	e14	e13	e14	e21	e29	226	290	65	18	26
27	23	e17	e14	e13	e14	e21	e31	189	289	63	18	25
28	23	e17	e14	e13	e14	e21	e36	164	278	61	18	26
29	25	e17	e14	e13	e15	e21	e32	158	252	63	18	29
30	e23	e18	e14	e13	---	e21	e29	160	244	59	17	30
31	e23	---	e14	e13	---	e22	---	157	---	56	16	---
TOTAL	1040	610	482	414	393	554	781	4791	9173	3319	856	625
MEAN	33.5	20.3	15.5	13.4	13.6	17.9	26.0	155	306	107	27.6	20.8
MAX	39	23	20	14	15	22	36	286	498	232	52	30
MIN	23	17	14	13	12	14	21	22	145	40	16	14
AC-FT	2060	1210	956	821	780	1100	1550	9500	18190	6580	1700	1240

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1996, BY WATER YEAR (WY)

MEAN	12.1	9.00	7.46	6.30	5.77	6.32	11.1	58.2	202	110	27.3	15.9
MAX	33.5	20.3	15.5	13.4	13.6	17.9	26.0	155	319	320	75.5	40.9
(WY)	1996	1996	1996	1996	1996	1996	1996	1996	1984	1995	1983	1984
MIN	6.20	4.90	3.87	3.43	3.47	3.21	5.29	21.3	63.6	21.9	10.4	7.09
(WY)	1980	1990	1975	1975	1975	1980	1973	1975	1966	1977	1981	1966

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1966 - 1996
ANNUAL TOTAL	25505.2	23038	
ANNUAL MEAN	69.9	62.9	39.3
HIGHEST ANNUAL MEAN			71.3
LOWEST ANNUAL MEAN			17.6
HIGHEST DAILY MEAN	555	Jul 12	555
LOWEST DAILY MEAN	e7.8	Mar 5	2.7
ANNUAL SEVEN-DAY MINIMUM	8.2	Mar 4	2.8
INSTANTANEOUS PEAK FLOW		609 Jun 22	751 Jun 17 1995
INSTANTANEOUS PEAK STAGE		6.57 Jun 22	a6.94 Jun 17 1995
ANNUAL RUNOFF (AC-FT)	50590	45700	28460
10 PERCENT EXCEEDS	275	223	116
50 PERCENT EXCEEDS	20	22	11
90 PERCENT EXCEEDS	8.6	14	4.8

e-Estimated.

a-Maximum gage height, 7.12 ft, Jun 24, 1971, site and datum then in use.

## 09035800 DARLING CREEK NEAR LEAL, CO

LOCATION (REVISED).--Lat 39°48'02", long 106°01'33", in SW<sup>1/4</sup>SW<sup>1/4</sup> sec.16, T.3 S., R.77 W., Grand County, Hydrologic Unit 14010001, on left bank 700 ft upstream from mouth and 1.2 mi southeast of Leal.

DRAINAGE AREA.--8.21 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 8,940 ft above sea level, from topographic map. Prior to Aug. 23, 1996, at site 2,400 ft upstream at different datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. No diversion upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	e4.8	e4.3	e2.9	e2.5	e2.2	e2.1	e3.5	32	44	9.1	3.5
2	6.6	e5.1	e4.1	e2.8	e2.4	e2.2	e2.1	e3.2	32	42	8.7	3.4
3	6.6	e4.6	e4.0	e2.9	e2.4	e2.1	e2.2	e3.5	35	40	8.5	3.1
4	6.3	e4.3	e4.2	e2.9	e2.3	e2.1	e2.1	5.5	39	38	8.2	3.1
5	6.7	e4.5	e4.2	e2.9	e2.3	e2.1	e2.2	8.4	46	34	7.7	4.6
6	6.4	e4.9	e4.3	e2.8	e2.3	e2.1	e2.1	10	53	30	7.3	6.8
7	6.5	e5.1	e4.1	e2.8	e2.2	e2.1	e2.2	12	57	27	7.2	4.8
8	6.5	e5.1	e4.1	e2.8	e2.2	e2.1	e2.2	14	62	25	7.0	4.0
9	6.3	e5.0	e4.0	e2.8	e2.2	e2.2	e2.2	16	67	24	6.8	3.8
10	6.4	e4.9	e3.9	e2.8	e2.2	e2.3	e2.4	17	67	22	6.5	3.6
11	6.7	e4.6	e3.7	e2.8	e2.2	e2.2	e2.7	18	65	21	6.2	3.4
12	7.1	e4.9	e3.8	e2.8	e2.2	e2.2	e2.9	23	64	19	6.0	4.9
13	7.1	e5.2	e3.8	e2.8	e2.2	e2.1	e2.7	28	63	18	5.9	6.7
14	6.4	e5.0	e3.6	e2.8	e2.2	e2.1	e2.6	31	61	17	5.6	5.9
15	6.6	e5.0	e3.4	e2.8	e2.2	e2.1	e2.5	34	67	17	5.6	8.4
16	6.5	e4.8	e3.4	e2.9	e2.3	e2.1	e2.6	41	73	16	5.4	5.0
17	6.4	e4.8	e3.4	e2.9	e2.3	e2.1	e2.5	43	72	17	5.1	4.7
18	6.4	e4.6	e3.4	e2.8	e2.2	e2.1	e2.4	45	72	18	5.2	5.2
19	6.1	e4.5	e3.3	e2.8	e2.1	e2.1	e2.3	51	71	16	5.3	5.4
20	5.4	e4.6	e3.3	e2.7	e2.1	e2.1	e2.3	46	71	15	5.2	5.6
21	5.7	e4.6	e3.3	e2.7	e2.2	e2.1	e2.3	42	73	14	4.8	6.2
22	e5.1	e4.5	e3.2	e2.6	e2.2	e2.1	e2.3	42	74	13	e4.7	7.1
23	e4.1	e4.4	e3.2	e2.6	e2.4	e2.1	e2.3	42	70	12	e4.5	6.9
24	e4.1	e4.3	e3.1	e2.6	e2.3	e2.0	e2.4	41	66	12	4.3	7.4
25	e4.1	e4.2	e3.1	e2.6	e2.2	e2.1	e2.7	45	61	11	4.1	6.8
26	e3.9	e4.3	e3.1	e2.6	e2.3	e2.1	e2.8	43	56	11	4.0	6.1
27	e4.5	e4.2	e3.0	e2.6	e2.4	e2.1	e2.3	39	54	11	4.1	5.7
28	e5.0	e3.9	e3.0	e2.6	e2.4	e2.2	e4.1	36	52	10	4.3	7.1
29	e5.0	e4.0	e2.9	e2.5	e2.3	e2.1	e3.7	35	49	11	4.2	8.0
30	e4.7	e4.5	e2.9	e2.5	---	e2.1	e3.6	34	47	10	4.0	8.2
31	e4.6	---	e2.9	e2.5	---	e2.1	---	33	---	9.6	3.7	---
TOTAL	180.6	139.2	110.0	84.9	65.7	65.8	76.7	885.1	1771	624.6	179.2	165.4
MEAN	5.83	4.64	3.55	2.74	2.27	2.12	2.56	28.6	59.0	20.1	5.78	5.51
MAX	7.1	5.2	4.3	2.9	2.5	2.3	4.1	51	74	44	9.1	8.4
MIN	3.9	3.9	2.9	2.5	2.1	2.0	2.1	3.2	32	9.6	3.7	3.1
AC-FT	358	276	218	168	130	131	152	1760	3510	1240	355	328

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1996, BY WATER YEAR (WY)

MEAN	4.04	3.10	2.53	2.14	1.95	1.96	2.83	14.5	47.9	22.7	7.33	4.70
MAX	7.86	5.52	4.33	3.00	3.00	2.90	6.03	28.6	85.1	91.6	20.2	9.64
(WY)	1985	1985	1985	1985	1985	1985	1985	1996	1984	1983	1983	1984
MIN	2.55	1.82	1.38	1.20	1.21	1.10	1.49	4.39	20.5	5.32	3.44	2.59
(WY)	1979	1976	1976	1976	1975	1975	1975	1983	1966	1977	1981	1979

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1966 - 1996
ANNUAL TOTAL	4591.1	4348.2	
ANNUAL MEAN	12.6	11.9	9.64
HIGHEST ANNUAL MEAN			18.1
LOWEST ANNUAL MEAN			5.64
HIGHEST DAILY MEAN	97	Jun 17	175
LOWEST DAILY MEAN	e,a 1.5	Apr 21	Jun 25 1983
ANNUAL SEVEN-DAY MINIMUM	1.5	Apr 20	1.0 Jan 12 1975
INSTANTANEOUS PEAK FLOW			1.1 Feb 24 1975
INSTANTANEOUS PEAK STAGE			b241 Jun 30 1984
ANNUAL RUNOFF (AC-FT)	9110	8620	4.30 Jun 30 1984
10 PERCENT EXCEEDS	45	42	6980
50 PERCENT EXCEEDS	4.6	4.4	27
90 PERCENT EXCEEDS	1.9	2.2	3.4
			1.8

e-Estimated.

a-Also occurred Apr 22-26.

b-From rating curve extended above 100 ft<sup>3</sup>/s.

## WILLIAMS FORK BASIN

## 09035900 SOUTH FORK WILLIAMS FORK NEAR LEAL, CO

LOCATION.--Lat 39°47'45", long 106°01'48", in NE<sup>1/4</sup> sec.17, T.3 S., R.77 W., Grand County, Hydrologic Unit 14010001, on left bank 800 ft upstream from highway bridge, 0.6 mi upstream from mouth, and 1.2 mi southeast of Leal.

DRAINAGE AREA.--27.3 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 8,950 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. No diversion upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	e16	e14	e11	e11	e12	e12	14	125	170	37	19
2	22	e16	e14	e11	e11	e12	e13	14	126	160	36	18
3	21	e15	e14	e11	e11	e12	e13	16	136	152	35	18
4	21	e14	e13	e11	e11	e12	e13	20	158	146	35	17
5	20	e14	e13	e11	e11	e12	e13	30	188	142	33	18
6	21	e15	e14	e11	e10	e12	e13	38	224	137	31	21
7	21	e16	e13	e11	e11	e12	e14	46	245	127	31	19
8	21	e16	e13	e11	e11	e12	e16	56	272	118	30	17
9	20	e16	e13	e11	e11	e12	e17	68	307	108	28	17
10	20	e15	e12	e11	e11	e12	e19	69	315	109	27	16
11	21	e15	e12	e11	e11	e11	e18	74	305	98	26	16
12	22	e14	e13	e11	e11	e11	e17	95	289	93	25	17
13	22	e13	e13	e11	e11	e11	e17	110	292	88	25	19
14	20	e14	e12	e11	e11	e11	e16	122	273	83	24	19
15	21	e15	e12	e11	e11	e11	e16	140	270	78	24	19
16	20	e15	e12	e11	e11	e11	e15	167	262	74	24	17
17	19	e15	e12	e11	e12	e11	e14	178	268	74	23	17
18	19	e15	e12	e11	e12	e11	e14	179	276	75	24	17
19	18	e14	e12	e11	e12	e11	e14	215	272	68	24	18
20	17	e14	e12	e11	e12	e11	e13	207	273	62	26	18
21	18	e14	e12	e11	e12	e11	e13	173	290	58	23	18
22	18	e14	e11	e11	e12	e11	e13	183	316	55	23	19
23	20	e14	e11	e11	e12	e11	e14	190	281	52	23	19
24	23	e14	e11	e11	e12	e11	e14	181	250	50	22	21
25	23	e14	e11	e11	e12	e11	18	203	228	49	21	20
26	23	e14	e11	e11	e12	e11	16	185	215	47	21	20
27	18	e13	e11	e11	e11	e11	16	156	215	45	21	18
28	12	e12	e11	e11	e12	e12	15	137	208	43	21	19
29	14	e13	e11	e11	e12	e12	16	129	185	43	21	21
30	e15	e14	e11	e11	---	e12	14	131	178	42	20	20
31	e16	---	e11	e11	---	e13	---	129	---	39	19	---
TOTAL	608	433	377	341	330	356	446	3655	7242	2685	803	552
MEAN	19.6	14.4	12.2	11.0	11.4	11.5	14.9	118	241	86.6	25.9	18.4
MAX	23	16	14	11	12	13	19	215	316	170	37	21
MIN	12	12	11	11	10	11	12	14	125	39	19	16
AC-FT	1210	859	748	676	655	706	885	7250	14360	5330	1590	1090

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1996, BY WATER YEAR (WY)

MEAN	13.5	10.6	9.05	7.49	7.11	7.16	11.4	56.5	159	74.6	26.3	16.7
MAX	24.0	15.6	21.1	11.0	11.4	11.5	25.0	118	243	215	63.3	32.3
(WY)	1985	1985	1986	1996	1996	1996	1971	1996	1984	1983	1983	1984
MIN	8.94	3.71	3.46	2.95	2.90	3.19	4.47	18.4	78.9	24.0	12.0	10.1
(WY)	1970	1967	1967	1967	1967	1967	1967	1995	1977	1966	1966	1966

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1966 - 1996

ANNUAL TOTAL	17330.6	17828	33.3
ANNUAL MEAN	47.5	48.7	54.8
HIGHEST ANNUAL MEAN			1984
LOWEST ANNUAL MEAN			20.2
HIGHEST DAILY MEAN	404	Jun 17	404
LOWEST DAILY MEAN	5.5	Apr 4	2.6
ANNUAL SEVEN-DAY MINIMUM	5.6	Mar 29	2.8
INSTANTANEOUS PEAK FLOW			a <sub>574</sub>
INSTANTANEOUS PEAK STAGE		3.80 Jun 22	b <sub>4.17</sub>
ANNUAL RUNOFF (AC-FT)	34380	35360	Jun 17 1995
10 PERCENT EXCEEDS	182	171	24130
50 PERCENT EXCEEDS	14	16	97
90 PERCENT EXCEEDS	6.4	11	12
			6.4

e-Estimated.

a-From rating curve extended above 256 ft<sup>3</sup>/s.

b-Maximum gage height, 4.22 ft, Nov 22, 1979, backwater from ice.

## 09036000 WILLIAMS FORK NEAR LEAL, CO

LOCATION.--Lat 39°50'02", long 106°03'21", in sec.31, T.2 S., R.77 W., Grand County, Hydrologic Unit 14010001, on right bank at downstream side of bridge, 100 ft downstream from Kinney Creek, and 1.7 mi northwest of Leal.

DRAINAGE AREA.--89.5 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1933 to current year. Records since May 10, 1940, equivalent to earlier records if diversion to August P. Gumlick Tunnel is added to flow past station. Prior to October 1958, published as Williams River near Leal.

REVISED RECORDS.--WSP 1733: 1951. WSP 2124: Drainage area. WRD CO. 1973: 1972.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 8,790 ft above sea level, from topographic map. Prior to Aug. 16, 1953, at site 15 ft downstream at present datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Transmountain diversion upstream from station through August P. Gumlick Tunnel (see table below for figures of diversion). Diversions for irrigation of about 200 acres of hay meadows upstream from station and about 40 acres downstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	53	42	28	e24	e22	27	49	419	528	125	48
2	71	44	41	28	e24	e21	28	52	419	501	112	47
3	66	38	39	28	e23	e21	29	58	447	446	110	46
4	68	42	40	29	e23	e20	30	80	461	379	108	45
5	68	44	41	e29	e23	21	30	118	510	374	104	48
6	66	48	41	e28	e22	21	30	145	645	420	95	62
7	70	47	39	e28	e22	23	32	166	740	392	94	53
8	72	47	39	28	23	24	35	202	813	367	90	46
9	69	48	39	27	23	24	43	238	906	344	88	43
10	69	44	37	27	23	24	56	244	915	334	84	42
11	72	40	36	e27	e22	24	55	248	908	310	78	42
12	77	50	37	e27	e22	23	50	315	879	291	77	45
13	80	48	37	e27	e22	22	46	369	876	274	71	53
14	69	48	34	e27	23	22	41	404	895	258	68	52
15	71	46	33	29	22	23	42	449	927	247	67	56
16	70	45	35	28	23	23	44	527	907	236	66	53
17	68	45	e34	e27	22	23	44	579	884	224	63	51
18	67	43	e34	e27	22	23	42	580	893	196	65	53
19	66	42	e33	e27	22	23	40	688	883	177	68	57
20	56	44	e33	e26	22	24	39	686	891	158	74	58
21	59	42	e32	e27	23	24	39	569	937	148	66	57
22	60	43	e32	e26	24	25	36	584	1060	151	64	62
23	53	42	e31	e26	25	26	37	610	912	134	61	64
24	56	40	e31	e26	23	25	50	584	803	134	59	68
25	59	41	e31	e26	23	25	66	646	743	155	55	68
26	61	40	e31	e26	23	e24	57	617	693	151	54	70
27	60	39	e30	e26	25	25	57	535	677	144	55	64
28	58	35	e30	e25	e23	25	56	476	658	138	55	68
29	58	44	e30	e25	e22	26	51	447	586	144	54	74
30	51	42	e29	e25	---	27	50	449	556	141	50	76
31	51	---	e29	e25	---	27	---	437	---	131	49	---
TOTAL	2013	1314	1080	835	663	730	1282	12151	22843	8027	2329	1671
MEAN	64.9	43.8	34.8	26.9	22.9	23.5	42.7	392	761	259	75.1	55.7
MAX	80	53	42	29	25	27	66	688	1060	528	125	76
MIN	51	35	29	25	22	20	27	49	419	131	49	42
AC-FT	3990	2610	2140	1660	1320	1450	2540	24100	45310	15920	4620	3310
a	0	0	0	0	0	0	0	0	282	1077	462	202

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1996, BY WATER YEAR (WY)

MEAN	38.1	29.7	24.0	20.7	19.2	19.1	36.4	176	485	220	70.6	44.1
MAX	102	52.6	35.1	28.6	26.4	24.5	91.3	392	966	765	198	98.4
(WY)	1962	1962	1985	1985	1962	1946	1946	1996	1938	1983	1983	1961
MIN	18.5	18.7	14.4	14.1	14.0	14.1	19.8	76.1	119	59.6	29.0	24.2
(WY)	1964	1964	1964	1964	1964	1964	1964	1968	1954	1934	1954	1964

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1934 - 1996

ANNUAL TOTAL	58136		54938									
ANNUAL MEAN		159		b153						b105		
HIGHEST ANNUAL MEAN										c105		
LOWEST ANNUAL MEAN										c176		
HIGHEST DAILY MEAN	1160	Jun 17		1060	Jun 22		1430			45.4		
LOWEST DAILY MEAN	d19	Feb 16		20	Mar 4		f13			Dec 28		
ANNUAL SEVEN-DAY MINIMUM	20	Feb 13		21	Feb 29		14			Dec 23		
INSTANTANEOUS PEAK FLOW				1150	Jun 22		1720			Jun 10		
INSTANTANEOUS PEAK STAGE				3.89	Jun 22		g4.23			Jun 10		
ANNUAL RUNOFF (AC-FT)	115300		b110800				b76070					
10 PERCENT EXCEEDS	637		530				275					
50 PERCENT EXCEEDS	46		50				33					
90 PERCENT EXCEEDS	21		23				18					

e-Estimated.

a-Diversions in acre-feet, through August P. Gumlick Tunnel, provided by Denver Water Board.

b-Includes diversions through August P. Gumlick Tunnel, since May 10, 1940.

c-Does not include diversions through August P. Gumlick Tunnel.

d-Also occurred Mar 5.

f-Also occurred at times in 1963, 1964, and 1967.

g-Maximum gage height, 5.46 ft, Jun 29, 1971, backwater from log.

## WILLIAMS FORK BASIN

## 09037500 WILLIAMS FORK NEAR PARSHALL, CO

LOCATION.--Lat 40°00'01", long 106°10'45", in SW<sup>1/4</sup>SW<sup>1/4</sup> sec.31, T.1 N., R.78 W., Grand County, Hydrologic Unit 14010001, on left bank 30 ft downstream from bridge on State Highway 286, 3.7 mi downstream from Skylark Creek, 3.9 mi south of Parshall, and 4.2 mi upstream from Williams Fork Reservoir Dam.

DRAINAGE AREA.--184 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1904 to September 1924, June 1933 to current year. Records since May 10, 1940, equivalent to earlier records if diversion to August P. Gumlick Tunnel is added to flow past station. Published as "near (Hot) Sulphur Springs" 1904-12 and as Williams River near Parshall June 1933 to September 1958. Water-quality data available, April 1986 to September 1987.

REVISED RECORDS.--WSP 1243: 1918. WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,808.95 ft above sea level, (Denver Board of Water Commissioners Datum). See WSP 1733 for history of changes prior to Aug. 9, 1938. Aug. 10, 1938 to Aug. 19, 1983, gage located on right bank at present datum. Aug. 19, 1983 to May 14, 1991, gage located 120 ft downstream of present site on left bank at present datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Transmountain diversion upstream from station through August P. Gumlick Tunnel (station 09035000). Diversions upstream from station for irrigation of about 1,300 acres upstream from station, and about 2,500 acres downstream from station. About 150 acres upstream from station irrigated by diversions into the drainage area. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	e54	e45	e39	e36	e34	e45	137	494	486	e34	19
2	94	e53	e45	e39	e34	e47	142	456	456	e31	17	
3	85	e52	e44	e39	e36	e33	e50	166	471	404	e29	17
4	93	e51	e44	e40	e36	e35	e52	225	470	322	e27	16
5	88	e50	e44	e39	e35	e35	e54	312	514	302	e25	16
6	82	e49	e44	e38	e35	e35	e57	371	614	349	e24	32
7	90	e48	e44	e38	e35	e35	e60	396	717	320	23	28
8	e86	e49	e43	e38	e35	e35	e63	442	790	286	22	19
9	e85	e49	e44	e38	e35	e35	e67	508	914	252	22	17
10	84	e49	e44	e38	e34	e35	e71	518	949	234	22	16
11	85	e48	e44	e38	e34	e34	e73	498	931	204	21	15
12	94	e49	e43	e37	e34	e35	e78	578	887	174	21	16
13	105	e48	e43	e36	e34	e35	e83	665	846	152	20	21
14	86	e48	e42	e37	e34	e35	e90	725	870	133	20	23
15	89	e48	e42	e36	e34	e36	e98	779	897	116	19	26
16	87	e47	e42	e35	e35	e95	910	998	106	19	22	
17	81	e47	e42	e36	e35	e34	e85	1060	918	107	19	19
18	75	e46	e41	e36	e34	e35	e80	1000	918	94	18	21
19	74	e45	e41	e36	e34	e36	e78	1120	890	91	19	37
20	62	e46	e41	e36	e34	e36	e77	1090	875	89	19	37
21	64	e45	e41	e37	e34	e35	e75	848	934	88	19	36
22	64	e46	e41	e36	e34	e36	e78	782	1040	e62	19	40
23	57	e47	e40	e36	e34	e36	e77	781	957	e57	25	67
24	70	e46	e41	e35	e34	e37	156	729	809	e51	22	88
25	58	e45	e40	e36	e34	e36	216	807	739	e48	19	91
26	55	e45	e40	e36	e34	e37	177	797	667	e45	20	94
27	55	e45	e40	e36	e34	e39	179	687	647	e44	23	84
28	51	e45	e39	e36	e34	e40	174	610	639	e42	24	85
29	54	e45	e39	e36	e34	e41	140	577	557	e40	24	93
30	54	e45	e39	e36	---	e42	134	567	518	e39	20	96
31	e55	---	e39	e36	---	e43	---	530	---	e37	19	---
TOTAL	2353	1430	1301	1145	1001	1119	2809	19357	22926	5230	688	1208
MEAN	75.9	47.7	42.0	36.9	34.5	36.1	93.6	624	764	169	22.2	40.3
MAX	105	54	45	40	36	43	216	1120	1040	486	34	96
MIN	51	45	39	35	34	33	45	137	456	37	18	15
AC-FT	4670	2840	2580	2270	1990	2220	5570	38390	45470	10370	1360	2400
a	0	0	0	0	0	0	0	0	282	1077	462	202

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1905 - 1996, BY WATER YEAR (WY)

MEAN	60.6	51.2	42.1	37.0	35.1	39.6	80.6	270	564	222	88.8	63.8
MAX	151	80.9	65.6	59.5	53.9	87.8	199	711	1243	855	245	153
(WY)	1962	1985	1985	1910	1912	1910	1962	1984	1918	1983	1984	1909
MIN	17.6	32.5	26.8	22.6	22.6	21.5	29.9	28.9	38.6	19.4	13.8	11.1
(WY)	1956	1982	1950	1964	1964	1971	1981	1963	1954	1963	1988	1966

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1905 - 1996
ANNUAL TOTAL	65603	60567	
ANNUAL MEAN	180	b168	b135
HIGHEST ANNUAL MEAN			c248
LOWEST ANNUAL MEAN			c38.8
HIGHEST DAILY MEAN	1370	Jun 18	1984
LOWEST DAILY MEAN	e24	Feb 17	d4.8
ANNUAL SEVEN-DAY MINIMUM	25	Feb 11	f5.1
INSTANTANEOUS PEAK FLOW		1280	2620
INSTANTANEOUS PEAK STAGE		4.96	6.05
ANNUAL RUNOFF (AC-FT)	130100	b121720	b97810
10 PERCENT EXCEEDS	661	641	348
50 PERCENT EXCEEDS	49	45	53
90 PERCENT EXCEEDS	26	23	30

e-Estimated.

a-Diversions in acre-ft through August P. Gumlick Tunnel provided by Denver Water Board.

b-Includes diversions through August P. Gumlick Tunnel.

c-Does not include diversions through August P. Gumlick Tunnel.

d-Also occurred May 8-10, 1972.

f-Site and datum then in use, from rating curve extended above 1400 ft<sup>3</sup>/s.

**09038000 WILLIAMS FORK RESERVOIR NEAR PARSHALL, CO**

LOCATION.--Lat 40°02'06", long 106°12'17", in SE<sup>1/4</sup> sec.23, T.1 N., R.79 W., Grand County, Hydrologic Unit 14010001, at dam on Williams Fork, 2.1 mi upstream from mouth, and 2.2 mi southwest of Parshall.

DRAINAGE AREA.--230 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1939 to current year. Prior to October 1948, published in WSP 1313.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Nonrecording gage read once daily. Datum of gage is above sea level, (levels by city engineer of Denver); gage readings have been reduced to elevations above sea level.

REMARKS.--Reservoir is formed by concrete-arch dam completed in October 1939; storage began April 1939; dam was enlarged Dec. 5, 1956 to Apr. 22, 1959. Enlarged capacity, 96,820 acre-ft, between elevations 7,634 ft, invert of outlet, and 7,811 ft, top of radial gates on spillway. No dead storage. Figures given represent usable contents. Reservoir is used for power development and to store water to compensate for water diverted through August P. Gumlick Tunnel. Water is released during periods of low flow in Colorado River to supply decreed prior water rights. Records provided by Denver Board of Water Commissioners.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 97,590 acre-ft, July 13, 1995, elevation, 7,811.47 ft; no contents at times in 1958 (construction) and 1966 (drained for repairs).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 97,230 acre-ft, June 22, elevation, 7,811.25 ft; minimum, 59,460 acre-ft, May 3, elevation, 7,783.38 ft.

## MONTHEND ELEVATION AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30 . . . . .	7,809.37	94,200	-
Oct. 31 . . . . .	7,808.40	92,680	-1,520
Nov. 30 . . . . .	7,804.32	86,490	-6,190
Dec. 31 . . . . .	7,801.25	82,060	-4,430
CAL YR 1995 . . . . .			+14,160
Jan. 31 . . . . .	7,799.09	79,060	-3,000
Feb. 29 . . . . .	7,796.66	75,770	-3,290
Mar. 31 . . . . .	7,789.42	66,510	-9,260
Apr. 30 . . . . .	7,783.83	59,970	-6,540
May 31 . . . . .	7,803.15	84,780	+24,810
June 30 . . . . .	7,810.85	96,580	+11,800
July 31 . . . . .	7,809.38	94,220	-2,360
Aug. 31 . . . . .	7,805.31	87,960	-6,260
Sept. 30 . . . . .	7,802.15	83,340	-4,620
WTR YR 1996 . . . . .			-10,860

## WILLIAMS FORK BASIN

**09038500 WILLIAMS FORK BELOW WILLIAMS FORK RESERVOIR, CO**

LOCATION.--Lat 40°02'07", long 106°12'17", in NW<sup>1/4</sup>SE<sup>1/4</sup> sec.23, T.1 N., R.79 W., Grand County, Hydrologic Unit 14010001, on left bank 400 ft downstream from Williams Fork Reservoir, 2.1 mi upstream from mouth, and 2.1 mi southwest of Parshall.

DRAINAGE AREA.--230 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1948 to September 1954, August 1958 to current year. Monthly discharge only for some periods, published in WSP 1313. Prior to October 1958, published as Williams River below Williams Fork Reservoir. Water-quality data available, April 1986 to September 1987.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry, and concrete control. Datum of gage is 7,615.0 ft above sea level, (Denver Board of Water Commissioners Datum). See WSP 1713 or 1733 for history of changes prior to Oct. 21, 1959.

REMARKS.--No estimated daily discharges. Records good. Flow completely regulated by Williams Fork Reservoir (station 09038000). Transmountain diversion upstream from station through August P. Gumlick Tunnel (station 09036000). Diversions upstream from station for irrigation of about 3,200 acres and about 100 acres downstream from station. About 450 acres upstream from station irrigated by diversion into the drainage area. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	106	163	167	108	106	109	254	260	239	502	104	167
2	106	163	168	108	106	109	254	260	238	411	104	167
3	106	163	167	109	106	109	256	260	238	382	105	137
4	105	163	168	108	106	110	257	258	238	382	104	107
5	105	163	167	107	107	111	257	262	201	369	104	107
6	106	163	167	108	108	111	257	262	169	371	105	107
7	106	163	167	109	108	111	257	260	216	390	105	106
8	106	163	167	109	108	111	257	260	350	360	105	106
9	106	163	168	109	108	112	257	260	408	301	106	106
10	106	163	169	109	108	113	257	259	423	290	106	106
11	106	163	126	108	135	257	258	423	264	264	106	106
12	106	164	108	108	177	257	257	436	231	231	106	106
13	106	165	108	108	177	257	257	568	226	226	106	107
14	106	164	108	109	214	257	257	695	224	224	106	107
15	106	163	108	109	251	257	256	729	224	224	106	106
16	106	164	107	109	249	257	255	814	224	224	106	106
17	106	165	106	109	252	257	254	1040	224	224	106	106
18	106	165	106	107	248	257	252	1030	224	224	105	107
19	106	165	107	107	109	249	257	251	917	224	108	108
20	106	165	108	109	249	257	250	828	224	133	108	
21	106	165	108	109	249	258	248	830	224	166	108	
22	106	164	108	109	251	259	247	946	225	182	107	
23	106	164	108	109	252	259	245	1160	226	197	106	
24	106	164	108	109	252	260	243	980	226	197	139	
25	107	165	109	108	252	260	243	795	191	197	166	
26	105	167	109	108	252	258	243	782	123	198	168	
27	105	167	109	108	252	258	242	697	104	183	201	
28	106	167	108	108	253	259	243	651	104	166	232	
29	106	167	108	108	254	260	223	651	104	167	234	
30	137	167	109	108	---	254	259	239	591	104	167	212
31	163	---	109	107	---	254	---	240	---	104	167	---
TOTAL	3371	4930	3960	3358	3131	6082	7723	7804	18283	7782	4123	3956
MEAN	109	164	128	108	108	196	257	252	609	251	133	132
MAX	163	167	169	109	109	294	260	262	1160	502	198	234
MIN	105	163	106	107	106	109	254	223	169	104	104	106
AC-FT	6690	9780	7850	6660	6210	12060	15320	15480	36260	15440	8180	7850

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1996, BY WATER YEAR (WY)

MEAN	128	133	105	104	90.2	92.9	75.4	116	201	171	154	156
MAX	264	276	251	264	279	265	273	401	1007	782	352	342
(WY)	1979	1979	1966	1984	1966	1966	1986	1952	1952	1983	1981	1981
MIN	23.5	36.7	13.5	14.7	7.88	14.1	6.04	6.29	10.8	7.97	19.2	17.1
(WY)	1988	1995	1983	1983	1995	1983	1960	1960	1961	1963	1986	1986

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1949 - 1996

ANNUAL TOTAL	65398.8	74503	
ANNUAL MEAN	179	<sup>a</sup> 189	<sup>a</sup> 130
HIGHEST ANNUAL MEAN			254
LOWEST ANNUAL MEAN			39.1
HIGHEST DAILY MEAN	1100	Jul 14	1860
LOWEST DAILY MEAN	<sup>b</sup> 4.7	Feb 14	<sup>c</sup> 30
ANNUAL SEVEN-DAY MINIMUM	4.7	Feb 14	May 14 1963
INSTANTANEOUS PEAK FLOW			<sup>d</sup> .54 Apr 27 1959
INSTANTANEOUS PEAK STAGE			<sup>e</sup> 2640 Jun 20 1953
ANNUAL RUNOFF (AC-FT)	129700	147800	8.50 Jun 20 1953
10 PERCENT EXCEEDS	482	261	91390
50 PERCENT EXCEEDS	108	163	252
90 PERCENT EXCEEDS	15	106	111
			15

a-Adjusted for storage at Williams Fork Reservoir.

b-Also occurred Feb 15 to Mar 5.

c-Also occurred Jul 28 to Aug 2, and Aug 4-5.

d-No flow for part of Apr 29, 1975.

f-Site and datum then in use, from rating curve extended above 1500 ft<sup>3</sup>/s.

## 09041000 MUDDY CREEK NEAR KREMMLING, CO

LOCATION.--Lat 40°17'37", long 106°28'59", in NE<sup>1/4</sup>SE<sup>1/4</sup> sec. 20, T.4 N., R.81 W., Grand County, Hydrologic Unit 14010001, on right bank 0.2 mile upstream from Lindsey Creek, 0.5 mile upstream from bridge on U.S. Highway 40, 3 miles downstream from Albert Creek, and 17 miles northwest of Kremmling.

DRAINAGE AREA.--87.4 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1937 to September 1943, October 1955 to September 1971, October 1993 to current year. Monthly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder. Elevation of gage is 7,856 ft above sea level, from topographic map. Prior to Oct. 1, 1955 non-recording gage at site 3 miles upstream at different datum. Prior to Oct. 1, 1993, at site 100 feet upstream at different datum.

REMARKS.--Records good except for estimated discharges, which are poor. Some regulations by Barber Reservoir (capacity, 4,290 acre-ft). Diversions for irrigation of about 900 acres above station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	e11	e12	e9.6	e8.0	e8.0	e21	219	426	45	17	5.5
2	10	e11	e12	e9.2	e8.0	e8.0	e23	295	416	41	15	5.0
3	8.8	e11	e12	e9.1	e8.0	e8.0	e27	325	424	37	15	5.0
4	9.9	e11	e12	e9.0	e8.0	e8.2	e28	382	457	33	17	5.1
5	12	e11	e12	e8.8	e8.0	e8.6	e29	480	466	34	17	5.1
6	10	e11	e12	e8.7	e8.0	e9.0	e30	589	461	33	17	6.5
7	9.6	e11	e12	e8.6	e8.0	e9.4	e31	599	407	31	17	7.4
8	10	e11	e12	e8.2	e8.0	e9.6	e40	608	376	28	15	6.4
9	10	e12	e12	e8.2	e8.0	e9.8	e80	707	372	24	13	5.7
10	10	e12	e12	e8.0	e8.0	e10	e160	780	357	25	14	6.7
11	12	e12	e12	e8.0	e8.0	e10	135	734	336	27	17	7.2
12	15	e12	e12	e8.0	e8.0	e10	125	788	327	27	14	7.2
13	e17	e12	e12	e8.0	e8.0	e10	101	829	271	20	12	7.2
14	16	e12	e12	e8.0	e8.0	e10	77	802	247	19	9.5	6.9
15	13	e12	e12	e8.0	e8.0	e10	86	823	244	18	8.9	6.2
16	13	e12	e12	e8.0	e8.0	e10	106	853	220	19	8.5	5.4
17	12	e12	e12	e8.0	e8.0	e10	124	956	206	22	8.2	5.1
18	12	e12	e12	e8.0	e8.0	e10	106	964	178	35	8.2	5.1
19	11	e12	e12	e8.0	e8.0	e10	93	889	160	37	9.2	5.1
20	10	e12	e12	e8.0	e8.0	e10	99	772	146	22	11	6.1
21	9.9	e12	e11	e8.0	e8.0	e10	91	643	193	19	10	6.3
22	10	e12	e11	e8.0	e8.0	e10	89	578	235	18	10	6.2
23	e9.5	e12	e11	e8.0	e8.0	e10	98	518	150	17	8.9	7.1
24	e9.8	e12	e11	e8.0	e8.0	e11	244	504	118	17	7.9	16
25	e10	e12	e11	e8.0	e8.0	e13	287	518	93	13	7.5	14
26	e11	e12	e11	e8.0	e8.0	e14	278	615	78	13	7.2	15
27	10	e12	e10	e8.0	e8.0	e15	289	492	78	13	7.5	13
28	9.6	e12	e10	e8.0	e8.0	e15	209	417	72	12	7.5	9.5
29	10	e12	e10	e8.0	e8.0	e16	159	378	63	15	7.5	8.7
30	11	e12	e10	e8.0	---	e16	173	390	51	18	6.9	8.4
31	e11	---	e9.8	e8.0	---	e18	402	---	18	6.3	---	
TOTAL	346.1	352	355.8	255.4	232.0	336.6	3438	18849	7628	750	350.7	224.1
MEAN	11.2	11.7	11.5	8.24	8.00	10.9	115	608	254	24.2	11.3	7.47
MAX	17	12	12	9.6	8.0	18	289	964	466	45	17	16
MIN	8.8	11	9.8	8.0	8.0	8.0	21	219	51	12	6.3	5.0
AC-FT	686	698	706	507	460	668	6820	37390	15130	1490	696	445

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1996, BY WATER YEAR (WY)

MEAN	8.45	7.66	6.16	5.36	5.44	9.79	83.0	304	177	25.2	7.95	5.79
MAX	29.9	26.7	13.0	9.00	10.0	46.5	233	608	481	104	28.2	16.4
(WY)	1962	1960	1960	1960	1962	1960	1962	1996	1957	1957	1957	1961
MIN	3.00	4.00	3.00	3.00	3.00	3.50	17.0	175	31.5	3.25	.48	1.22
(WY)	1941	1941	1938	1938	1941	1964	1966	1966	1939	1940	1940	1942

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1938 - 1996

ANNUAL TOTAL	22814.9		33117.7									
ANNUAL MEAN		62.5		90.5						54.0		
HIGHEST ANNUAL MEAN										90.5		1996
LOWEST ANNUAL MEAN										28.3		1966
HIGHEST DAILY MEAN		517	Jun 6		964	May 18				964	May 18	1996
LOWEST DAILY MEAN		a3.1	Sep 17		b5.0	Sep 2				c.10	Aug 19	1940
ANNUAL SEVEN-DAY MINIMUM		4.3	Sep 14		5.5	Aug 31				.20	Aug 18	1940
INSTANTANEOUS PEAK FLOW					1120	May 18				1120	May 18	1996
INSTANTANEOUS PEAK STAGE						8.54	May 18			8.54	May 18	1996
ANNUAL RUNOFF (AC-FT)		45250			65690					39130		
10 PERCENT EXCEEDS		262			373					200		
50 PERCENT EXCEEDS		12			12					8.0		
90 PERCENT EXCEEDS		7.4			8.0					3.2		

e-Estimated.

a-Also occurred Sep 18.

b-Also occurred Sep 3.

c-Also occurred Aug 24, 1940.

## MUDDY CREEK BASIN

**09041090 MUDDY CREEK ABOVE ANTELOPE CREEK NEAR KREMMLING, CO**

LOCATION.--Lat 40°12'09", long 106°25'19", in SE<sup>1</sup>/4SE<sup>1</sup>/4 sec.23, T.3 N., R.81 W., Grand County, Hydrologic Unit 14010001, on left bank at upstream side of box culverts on U.S. Highway 40, 10.9 mi north of Kremmling, on U.S. Highway 40.

DRAINAGE AREA.--145 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--April 1990 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 7,520 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	e10	e12	e8.0	e6.5	e7.5	e29	248	414	51	20	7.0
2	10	e10	e11	e8.0	e6.5	e7.6	e31	346	403	47	16	6.3
3	8.4	e10	e11	e8.0	e6.5	e7.7	e35	371	406	40	16	6.1
4	8.1	e10	e10	e8.0	e6.5	e7.9	e40	433	426	28	19	5.7
5	11	e10	e9.0	e8.0	e6.5	e8.0	e47	522	425	25	21	5.3
6	9.2	e10	e9.0	e7.5	e6.5	e8.2	e65	659	427	25	22	6.5
7	8.3	e10	e9.0	e7.5	e6.5	e8.4	e90	674	400	24	26	9.7
8	8.5	e10	e9.0	e7.5	e6.3	e8.6	e110	676	365	21	23	9.3
9	9.7	e10	e9.0	e7.5	e6.2	e8.8	e140	793	359	22	15	7.7
10	9.2	e9.5	e9.0	e7.5	e6.0	e9.0	216	827	348	19	15	7.2
11	11	e9.6	e9.0	e7.5	e6.0	e9.0	195	792	323	15	20	9.5
12	13	e9.6	e9.0	e7.4	e6.0	e9.0	168	839	323	15	17	9.2
13	e14	e9.8	e9.0	e7.2	e6.0	e9.0	156	862	271	14	16	9.5
14	15	e10	e9.0	e7.1	e6.0	e9.0	114	846	246	14	13	8.9
15	12	e10	e9.0	e7.0	e6.0	e9.0	107	850	243	14	10	8.8
16	12	e10	e8.0	e7.0	e5.9	e9.2	139	859	225	13	11	7.0
17	12	e10	e8.0	e7.0	e6.0	e9.4	167	899	207	14	11	5.9
18	12	e10	e8.0	e7.0	e6.3	e9.7	139	908	172	14	10	5.7
19	11	e10	e8.0	e7.0	e6.4	e10	120	883	160	15	10	5.8
20	10	e10	e8.0	e7.0	e6.5	e11	114	816	148	15	11	6.5
21	9.9	e10	e9.0	e7.0	e6.5	e11	108	678	163	15	12	8.1
22	9.8	e10	e9.0	e6.8	e6.5	e12	103	603	222	16	15	7.9
23	9.5	e10	e8.0	e6.7	e6.7	e13	121	530	148	16	13	8.4
24	10	e10	e8.0	e6.6	e6.7	e13	265	517	119	16	9.3	15
25	11	e10	e8.0	e6.5	e7.0	e14	372	511	105	16	8.3	17
26	11	e9.8	e9.0	e6.5	e7.1	e14	304	620	93	17	7.7	14
27	10	e9.6	e8.0	e6.5	e7.2	e16	364	522	77	17	8.2	14
28	9.7	e11	e8.0	e6.5	e7.3	e17	267	438	79	17	9.3	12
29	9.8	e12	e8.0	e6.5	e7.5	e19	194	399	72	18	9.2	11
30	10	e12	e8.0	e6.5	---	e21	197	386	59	18	8.6	11
31	e10	---	e8.0	e6.5	---	e24	---	395	---	18	7.7	---
TOTAL	326.1	302.9	274.0	221.3	187.6	350.0	4517	19702	7428	629	430.3	266.0
MEAN	10.5	10.1	8.84	7.14	6.47	11.3	151	636	248	20.3	13.9	8.87
MAX	15	12	12	8.0	7.5	24	372	908	427	51	26	17
MIN	8.1	9.5	8.0	6.5	5.9	7.5	29	248	59	13	7.7	5.3
AC-FT	647	601	543	439	372	694	8960	39080	14730	1250	853	528

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1996, BY WATER YEAR (WY)

MEAN	6.36	7.02	5.84	6.14	6.80	13.7	86.8	341	164	16.6	10.3	6.19
MAX	10.5	10.1	8.84	8.85	10.7	20.1	151	636	366	52.2	13.9	8.87
(WY)	1996	1996	1993	1993	1993	1993	1996	1996	1995	1995	1996	1996
MIN	4.32	4.36	2.82	2.68	3.00	9.92	40.8	190	32.2	2.69	5.14	3.51
(WY)	1993	1995	1991	1991	1991	1991	1995	1992	1992	1994	1994	1994

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1990 - 1996
ANNUAL TOTAL	24155.9	34634.2	
ANNUAL MEAN	66.2	94.6	59.0
HIGHEST ANNUAL MEAN			94.6
LOWEST ANNUAL MEAN			29.0
HIGHEST DAILY MEAN	657	Jun 6	908 May 18
LOWEST DAILY MEAN	3.1	Sep 18	5.3 Sep 5
ANNUAL SEVEN-DAY MINIMUM	4.3	Sep 14	6.0 Feb 10
INSTANTANEOUS PEAK FLOW			937 May 18
INSTANTANEOUS PEAK STAGE			7.43 May 18
ANNUAL RUNOFF (AC-FT)	47910	68700	42740
10 PERCENT EXCEEDS	280	371	198
50 PERCENT EXCEEDS	11	10	8.9
90 PERCENT EXCEEDS	7.4	6.5	3.5

e-Estimated.

a-Maximum gage height, 7.43 ft, May 18, 1996.

**09041090 MUDDY CREEK ABOVE ANTELOPE CREEK NEAR KREMMLING, CO--Continued****WATER-QUALITY RECORDS**

PERIOD OF RECORD.--April 1990 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1990 to current year.

WATER TEMPERATURE: April 1990 to current year.

SUSPENDED-SEDIMENT DISCHARGE: April 1990 to current year.

INSTRUMENTATION.--Water-quality monitor from April 1990 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 999 microsiemens, July 23, 1994; minimum, 88 microsiemens, May 20, 1994.

WATER TEMPERATURE: Maximum, 26.4°C, July 14, 1991; minimum, 0.0°C, on many days during winter.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 770 microsiemens, July 18; minimum daily, 97 microsiemens, June 7.

WATER TEMPERATURE: Maximum 23.2°C, July 20; minimum, 0.0°C, on many winter days.

REMARKS.--Missing sediment analysis from 1995 publication has been amended to this record.

**WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996**

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO <sub>3</sub> )	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
OCT 24...	1600	9.6	413	8.4	3.0	3.7	10.8	180	50	13
NOV 29...	1500	13	431	8.3	0.5	6.1	10.3	190	52	15
DEC 05...	1500	8.8	417	8.3	1.0	5.5	10.7	180	49	14
APR 10...	0930	172	340	8.2	1.5	90	10.7	140	38	9.8
22...	1300	85	421	8.4	3.0	30	10.3	180	51	13
MAY 22...	1200	567	140	8.3	8.0	54	8.9	63	19	3.7
JUN 05...	1145	453	128	8.3	7.5	--	7.6	51	15	3.4
10...	1300	344	141	8.0	11.0	--	8.1	62	18	4.2
JUL 11...	1400	16	615	8.4	19.0	1.4	6.9	280	81	20
16...	1330	12	671	8.6	18.0	2.0	6.9	310	87	23
AUG 28...	1130	5.8	533	8.7	16.0	2.2	7.4	230	61	18
SEP 03...	1145	5.3	480	8.4	16.0	1.5	7.6	200	57	15
		SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO (MG/L AS K)	POTAS- SIUM, DIS- SOLVED (MG/L AS CACO <sub>3</sub> )	ALKA- LINITY AS CACO <sub>3</sub>	SULFATE DIS- SOLVED (MG/L AS SO <sub>4</sub> )	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO <sub>2</sub> )
OCT 24...	14	14	0.5	1.7	134	78	1.9	0.2	8.5	264
NOV 29...	17	16	0.5	1.6	137	88	2.0	0.1	9.4	274
DEC 05...	15	15	0.5	1.5	136	82	1.7	0.1	9.2	265
APR 10...	11	15	0.4	4.5	101	64	2.1	0.2	6.5	212
22...	16	16	0.5	2.3	135	78	2.0	0.1	9.6	238
MAY 22...	3.8	11	0.2	1.0	58	15	0.5	<0.1	8.2	94
JUN 05...	4.6	16	0.3	0.8	44	19	0.3	<0.1	7.6	104
10...	4.4	13	0.2	0.9	53	20	0.5	<0.1	8.3	96
JUL 11...	21	14	0.5	1.9	224	110	1.5	0.2	11	400
16...	24	14	0.6	2.3	241	130	1.8	0.3	11	448
AUG 28...	20	16	0.6	2.4	163	120	2.3	0.2	7.0	332
SEP 03...	17	15	0.5	2.1	150	100	1.8	0.2	6.6	300

## MUDDY CREEK BASIN

## 09041090 MUDDY CREEK ABOVE ANTELOPE CREEK NEAR KREMMLING, CO--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- (MG/L)	SOLIDS, DIS- (TONS AC-FT*)	SOLIDS, DIS- (TONS PER DAY)	RESIDUE TOTAL SUS- PENDED (MG/L)	NITRO- GEN, DEG. C.	NITRO- GEN, NO <sub>2</sub> +NO <sub>3</sub> DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)
OCT 24...	248	0.36	6.86	--	<0.01	<0.05	<0.02	0.30	--
NOV 29...	267	0.37	9.84	--	<0.01	<0.05	<0.02	0.20	--
DEC 05...	254	0.36	6.33	5	<0.01	<0.05	<0.02	--	--
APR 10...	198	0.29	98.5	--	<0.01	0.22	0.14	0.96	0.36
22...	254	0.32	54.7	--	<0.01	0.12	<0.02	0.50	--
MAY 22...	87	0.13	144	--	<0.01	0.06	<0.02	0.50	--
JUN 05...	77	0.14	127	--	<0.01	0.05	0.03	0.27	0.17
10...	88	0.13	89.2	--	<0.01	<0.05	<0.02	0.30	--
JUL 11...	381	0.54	17.3	--	<0.01	<0.05	0.03	0.37	0.37
16...	424	0.61	14.5	6	0.01	0.05	0.02	0.38	0.38
AUG 28...	329	0.45	5.20	7	<0.01	<0.05	<0.02	0.30	--
SEP 03...	290	0.41	4.26	<1	<0.01	<0.05	<0.02	0.20	--
DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT 24...	0.30	0.20	0.30	0.02	0.01	<0.01	--	--	--
NOV 29...	0.20	<0.20	0.20	<0.01	<0.01	<0.01	--	--	--
DEC 05...	<0.20	<0.20	--	<0.01	<0.01	<0.01	4.5	4.1	--
APR 10...	1.1	0.50	1.3	0.33	0.09	0.07	--	--	--
22...	0.50	0.30	0.62	0.06	<0.01	<0.01	--	--	--
MAY 06...	0.30	0.20	0.35	0.04	0.01	<0.01	--	--	--
22...	0.50	0.20	0.56	0.20	0.01	<0.01	--	6.0	0.3
JUN 05...	0.30	0.20	0.35	0.04	0.01	<0.01	--	--	--
10...	0.30	0.20	0.30	0.09	0.02	0.01	--	--	--
JUL 11...	0.40	0.40	0.40	<0.01	<0.01	0.01	--	--	--
16...	0.40	0.40	0.45	<0.01	<0.01	<0.01	--	8.1	0.3
AUG 28...	0.30	0.30	0.30	<0.01	<0.01	<0.01	--	5.0	0.1
SEP 03...	0.20	0.30	0.20	0.01	<0.01	<0.01	--	4.5	<0.1

**09041090 MUDDY CREEK ABOVE ANTELOPE CREEK NEAR KREMMLING, CO--Continued**

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## MUDDY CREEK BASIN

**09041090 MUDDY CREEK ABOVE ANTELOPE CREEK NEAR KREMMLING, CO--Continued**

## SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SEDI- MENT, MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
		SECOND		
OCT 24...	1405	9.6	10	0.26
NOV 29...	1415	13	12	0.43
DEC 05...	1520	8.8	9	0.22
APR 10...	1115	172	290	135
17...	1300	151	226	92
22...	1315	85	65	15
30...	1130	177	138	66
MAY 22...	0950	567	229	350
JUN 05...	1115	453	138	169
10...	1145	377	79	80
JUL 11...	1230	16	8	0.35
16...	1305	12	9	0.30
AUG 01...	0930	15	20	0.80
28...	1140	7.8	7	0.16
SEP 03...	1130	5.3	6	0.08

## SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SEDI- MENT, MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
		SECOND		
APR 17...	1300	151	226	92
JUN 05...	1502	8.5	231	5.3
JUL 06...	1245	13	20	0.70
AUG 15...	0102	14	21	0.79
29...	1930	7.0	12	0.23
SEP 18...	2245	3.3	16	0.14
28...	2210	6.0	19	0.31

## MUDDY CREEK BASIN

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## 09041090 MUDDY CREEK ABOVE ANTELOPE CREEK NEAR KREMMLING, CO--Continued

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	396	364	371	384	324	354	---	---	---	---	---	---
2	375	367	371	330	314	319	---	---	---	---	---	---
3	383	370	377	383	330	356	---	---	---	---	---	---
4	422	382	394	414	369	394	---	---	---	---	---	---
5	446	399	432	434	381	406	---	---	---	---	---	---
6	399	385	389	415	351	377	---	---	---	---	---	---
7	412	390	400	392	341	370	---	---	---	---	---	---
8	432	412	420	408	367	383	---	---	---	---	---	---
9	433	395	406	411	355	384	---	---	---	---	---	---
10	395	383	387	438	384	400	---	---	---	---	---	---
11	411	383	393	461	403	439	---	---	---	---	---	---
12	391	363	380	453	392	417	---	---	---	---	---	---
13	363	275	327	457	378	420	---	---	---	---	---	---
14	287	259	271	436	391	402	---	---	---	---	---	---
15	323	287	306	452	379	405	---	---	---	---	---	---
16	341	323	335	434	376	409	---	---	---	---	---	---
17	353	341	348	414	355	387	---	---	---	---	---	---
18	364	353	358	428	370	391	---	---	---	---	---	---
19	375	364	371	469	371	403	---	---	---	---	---	---
20	382	374	378	454	361	399	---	---	---	---	---	---
21	385	374	379	483	373	406	---	---	---	---	---	---
22	390	381	386	481	380	412	---	---	---	---	---	---
23	403	387	394	429	376	402	---	---	---	---	---	---
24	442	403	420	463	411	425	---	---	---	---	---	---
25	467	414	442	463	402	425	---	---	---	---	---	---
26	442	394	418	---	---	---	---	---	---	---	---	---
27	426	405	417	---	---	---	---	---	---	---	---	---
28	426	418	422	---	---	---	---	---	---	---	---	---
29	432	414	424	---	---	---	---	---	---	---	---	---
30	430	411	420	---	---	---	---	---	---	---	---	---
31	422	384	407	---	---	---	---	---	---	---	---	---
MONTH	467	259	385	---	---	---	---	---	---	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	377	349	367
2	---	---	---	---	---	---	---	---	---	349	320	330
3	---	---	---	---	---	---	---	---	---	329	301	313
4	---	---	---	---	---	---	---	---	---	304	279	291
5	---	---	---	---	---	---	---	---	---	292	267	279
6	---	---	---	---	---	---	---	---	---	280	251	261
7	---	---	---	---	---	---	---	---	---	255	240	246
8	---	---	---	---	---	---	---	---	---	245	233	238
9	---	---	---	---	---	---	---	---	---	244	227	232
10	---	---	---	---	---	---	376	275	330	251	220	233
11	---	---	---	---	---	---	376	357	366	220	209	215
12	---	---	---	---	---	---	388	220	333	223	201	210
13	---	---	---	---	---	---	387	371	378	210	191	198
14	---	---	---	---	---	---	405	376	391	195	181	186
15	---	---	---	---	---	---	428	369	403	187	171	177
16	---	---	---	---	---	---	414	341	394	177	167	171
17	---	---	---	---	---	---	386	364	375	178	158	167
18	---	---	---	---	---	---	402	324	376	162	152	159
19	---	---	---	---	---	---	413	387	399	156	145	149
20	---	---	---	---	---	---	421	323	390	152	140	146
21	---	---	---	---	---	---	420	378	408	158	143	150
22	---	---	---	---	---	---	432	392	419	157	143	150
23	---	---	---	---	---	---	421	400	413	174	145	154
24	---	---	---	---	---	---	---	---	---	171	135	149
25	---	---	---	---	---	---	---	---	---	177	153	160
26	---	---	---	---	---	---	---	---	---	207	177	193
27	---	---	---	---	---	---	---	---	---	207	182	194
28	---	---	---	---	---	---	---	---	---	208	176	193
29	---	---	---	---	---	---	---	---	---	213	188	206
30	---	---	---	---	---	---	---	---	---	193	170	182
31	---	---	---	---	---	---	---	---	---	178	158	168
MONTH	---	---	---	---	---	---	---	---	---	377	135	209

MUDDY CREEK BASIN

**09041090 MUDDY CREEK ABOVE ANTELOPE CREEK NEAR KREMMLING, CO--Continued**

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
1	166	141	153	411	390	397	673	625	646	479	468	474
2	149	129	141	420	403	416	675	611	637	486	470	478
3	145	126	135	457	401	424	676	629	653	481	471	475
4	134	117	124	480	457	469	685	659	672	491	466	472
5	128	106	116	533	480	505	677	653	667	469	461	465
6	120	104	111	542	516	528	710	627	657	463	458	461
7	128	97	109	564	519	544	652	609	626	472	452	463
8	137	107	122	543	517	529	619	572	596	456	423	434
9	149	108	126	579	516	557	597	564	579	433	423	429
10	151	128	139	607	579	590	631	586	602	443	430	438
11	161	128	143	619	583	598	635	603	621	446	407	433
12	163	136	152	611	592	602	603	577	582	407	393	401
13	179	156	165	647	585	614	582	518	537	407	388	394
14	189	167	177	686	619	655	537	511	521	591	407	478
15	212	179	194	653	606	624	543	508	524	468	450	458
16	214	201	208	686	646	671	523	490	507	500	464	483
17	221	195	206	738	639	663	501	479	490	492	487	490
18	226	208	216	770	605	699	489	473	482	489	471	483
19	244	207	214	605	521	542	490	474	484	477	469	473
20	219	203	211	593	530	571	---	---	---	506	475	495
21	246	190	208	676	593	638	488	466	474	493	471	482
22	237	178	204	638	630	634	470	441	455	471	447	455
23	239	228	235	648	629	639	451	440	446	477	434	443
24	249	231	243	651	631	641	461	451	458	478	415	437
25	270	247	258	667	646	657	478	460	469	449	386	400
26	312	267	291	709	663	682	478	467	473	402	378	387
27	340	311	326	698	661	671	480	471	474	378	351	362
28	379	340	364	674	654	664	---	---	---	372	351	360
29	387	368	377	675	655	668	553	475	489	387	372	379
30	392	373	384	684	644	661	555	472	503	398	386	392
31	---	---	---	648	628	639	481	467	475	---	---	---
Month	392	97	202	770	390	593	---	---	---	591	351	442

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## MUDDY CREEK BASIN

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## 09041090 MUDDY CREEK ABOVE ANTELOPE CREEK NEAR KREMMLING, CO--Continued

## TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	6.5	2.1	4.0
2	---	---	---	---	---	---	---	---	---	6.9	1.6	4.3
3	---	---	---	---	---	---	---	---	---	8.4	1.0	4.8
4	---	---	---	---	---	---	---	---	---	8.7	1.2	5.2
5	---	---	---	---	---	---	---	---	---	9.9	1.1	5.6
6	---	---	---	---	---	---	---	---	---	8.7	1.6	5.4
7	---	---	---	---	---	---	---	---	---	8.0	2.0	5.2
8	---	---	---	---	---	---	---	---	---	10.1	2.0	5.8
9	---	---	---	---	---	---	---	---	---	8.9	3.1	6.1
10	---	---	---	---	---	---	3.7	.0	1.5	9.4	2.4	5.9
11	---	---	---	---	---	---	2.5	.4	1.2	10.3	2.6	6.5
12	---	---	---	---	---	---	5.7	.0	1.9	10.5	3.6	7.3
13	---	---	---	---	---	---	1.9	.0	.9	9.7	3.4	6.8
14	---	---	---	---	---	---	5.6	.0	1.9	10.3	3.5	7.1
15	---	---	---	---	---	---	8.1	.0	3.0	11.5	3.5	7.7
16	---	---	---	---	---	---	8.1	.0	3.5	12.3	4.2	8.5
17	---	---	---	---	---	---	6.3	.1	2.8	10.8	5.4	7.9
18	---	---	---	---	---	---	4.6	.0	1.8	11.3	3.9	7.9
19	---	---	---	---	---	---	5.1	.0	1.9	10.9	4.3	7.6
20	---	---	---	---	---	---	3.7	.0	1.5	9.9	4.3	7.3
21	---	---	---	---	---	---	7.8	.0	3.4	9.3	3.2	6.6
22	---	---	---	---	---	---	7.9	.5	4.2	8.8	4.6	6.9
23	---	---	---	---	---	---	9.9	2.8	6.1	9.3	4.9	7.3
24	---	---	---	---	---	---	---	---	---	8.3	5.1	7.0
25	---	---	---	---	---	---	---	---	---	8.6	5.2	7.1
26	---	---	---	---	---	---	---	---	---	7.1	4.0	5.5
27	---	---	---	---	---	---	---	---	---	8.2	4.5	6.4
28	---	---	---	---	---	---	---	---	---	7.7	4.5	6.2
29	---	---	---	---	---	---	---	---	---	11.0	4.5	7.4
30	---	---	---	---	---	---	---	---	---	10.6	6.4	8.8
31	---	---	---	---	---	---	---	---	---	11.2	4.8	8.1
MONTH	---	---	---	---	---	---	---	---	---	12.3	1.0	6.6

	JUNE			JULY			AUGUST			SEPTEMBER		
1	11.1	5.6	8.6	21.6	13.3	17.5	21.7	14.7	18.5	18.9	11.6	15.3
2	11.1	5.1	8.4	21.8	14.3	18.2	21.6	16.1	19.0	18.1	12.0	15.1
3	11.8	5.6	9.0	20.8	14.8	18.0	20.8	15.4	18.3	18.7	10.9	14.8
4	11.3	6.1	9.2	21.0	14.7	17.9	19.0	14.8	17.0	18.5	11.5	15.0
5	11.1	6.3	9.4	22.9	15.8	19.0	19.3	12.3	16.0	16.1	11.9	14.3
6	12.6	6.1	9.5	21.8	15.4	18.8	19.2	12.8	16.3	14.1	12.2	13.1
7	13.0	6.4	9.9	22.9	14.5	18.9	19.6	12.5	16.3	17.4	10.7	13.7
8	13.8	8.3	11.2	22.3	15.4	19.1	20.9	13.5	17.2	16.7	10.8	13.7
9	13.9	9.4	11.9	19.7	16.2	17.8	18.6	14.9	17.1	17.6	10.7	14.0
10	14.7	9.8	12.2	21.6	14.3	18.1	18.5	12.7	15.9	19.0	10.6	14.6
11	13.4	9.8	11.8	22.5	14.5	18.7	19.4	12.6	16.3	17.3	12.2	14.6
12	13.7	9.1	11.5	21.8	13.5	17.9	18.9	13.1	16.5	18.0	13.2	15.4
13	15.4	10.0	12.6	22.2	15.3	18.9	19.3	13.3	16.7	15.8	13.3	14.4
14	13.9	10.9	12.5	22.2	14.4	18.5	19.7	14.0	16.9	14.8	11.2	12.7
15	11.9	9.7	10.4	19.5	14.7	17.1	21.6	13.9	17.5	15.7	11.4	13.3
16	15.3	8.7	11.7	21.4	15.1	18.0	22.9	15.0	18.6	16.6	10.0	13.2
17	16.3	10.1	13.2	20.9	15.8	18.7	22.1	14.7	18.2	14.2	10.3	12.1
18	17.7	9.8	13.8	19.3	14.4	17.1	20.0	16.0	17.7	13.0	8.2	10.2
19	18.8	10.4	14.7	21.9	13.6	17.9	18.2	14.2	16.0	9.3	7.2	8.2
20	16.9	11.5	14.3	23.2	15.6	19.4	---	---	---	8.9	6.7	7.5
21	16.2	11.7	13.8	22.2	14.5	18.7	17.2	13.3	15.2	11.9	5.8	8.6
22	16.1	11.0	13.5	22.1	14.3	18.4	19.2	12.7	15.8	12.3	7.7	9.9
23	17.0	10.2	13.8	22.0	14.2	18.2	20.1	13.2	16.6	12.2	8.6	10.3
24	18.5	11.3	15.0	22.7	14.2	18.5	21.0	13.7	17.2	12.2	9.0	10.7
25	20.4	11.7	15.7	20.6	15.2	17.8	21.0	13.8	17.3	11.4	8.4	9.7
26	19.7	12.7	16.3	21.9	13.9	18.0	20.6	14.3	17.1	8.4	6.1	7.1
27	17.1	14.0	15.5	21.5	14.2	18.1	18.6	14.3	16.2	8.0	3.2	5.7
28	15.2	12.5	14.0	19.7	15.2	17.4	---	---	---	11.5	5.2	8.1
29	19.9	9.8	14.5	18.8	16.0	17.1	20.4	13.3	16.5	12.7	6.6	9.4
30	21.0	13.0	16.9	21.4	14.5	17.9	19.0	13.1	15.9	12.9	7.6	10.1
31	---	---	---	21.4	14.6	18.4	19.6	12.2	15.7	---	---	---
MONTH	21.0	5.1	12.5	23.2	13.3	18.2	---	---	---	19.0	3.2	11.8

## MUDDY CREEK BASIN

**401110106244800 WOLFORD MOUNTAIN RESERVOIR AT INFLOW NEAR KREMMLING, CO**  
**WATER-QUALITY RECORDS**

LOCATION.--Lat. 40°08'41", long 106°24'06", in NW<sup>1/4</sup> NW<sup>1/4</sup> sec. 18, T.2 N, R.81 W., Grand County, Hydrologic Unit 14010001, 5 mi north of Kremmling.

DRAINAGE AREA.--270 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1995 to current year.

REMARKS.--Samples were collected near-surface and near-bottom, at inflow.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

				SPE-CIFIC CON-DUCT-ANCE (STAND-ARD UNITS)	PH (US/CM)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)					
DATE	TIME	SAM-PLING DEPTH (FEET)	CON-DUCT-ANCE (FEET)	(STAND-ARD UNITS)	(US/CM)	(DEG C)	(MG/L)					
JUN 06...	1321	0.1	136	8.0	9.0	9.0						
JUN 06...	1322	5.0	135	7.9	9.0	9.0						
JUL 17...	1240	0.1	412	7.9	21.0	6.3						
JUL 17...	1241	5.0	415	7.9	20.5	6.3						
JUL 17...	1242	7.0	560	7.7	19.5	5.7						
AUG 27...	1346	0.1	510	7.9	19.0	7.2						
AUG 27...	1347	5.0	511	7.9	19.0	7.1						
		SPE-CIFIC CON-DUCT-ANCE (STAND-ARD UNITS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO <sub>3</sub> )	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)			
DATE	TIME	SAM-PLING DEPTH (FEET)	CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	TRANS-PAR-ENCY (SECCHI DISK)	OXYGEN, DIS-SOLVED (MG/L)				
JUN 06...	1320	5.0	135	7.9	9.0	--	11.0	9.0	58			
JUL 17...	1300	5.0	415	7.9	20.5	0.70	11.6	6.3	170			
AUG 27...	1400	5.0	511	7.9	19.0	2.1	49.0	7.1	200			
		SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO <sub>3</sub> )	SULFATE DIS-SOLVED (MG/L AS SO <sub>4</sub> )	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO <sub>2</sub> )	SOLIDS, RESIDUE AT 180 DEG. C (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
DATE		SODIUM PERCENT										
JUN 06...	0.2	13	0.8	46	21	0.3	<0.1	7.6	101	83	0.45	0.36
JUL 17...	0.4	14	2.1	107	97	1.3	0.2	8.6	256	247	0.46	0.40
AUG 27...	0.5	15	2.6	125	130	1.7	0.2	7.6	310	304	0.90	0.90
		NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + NO <sub>2</sub> +NO <sub>3</sub> ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO <sub>2</sub> +NO <sub>3</sub> TOTAL (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	
DATE		NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO <sub>2</sub> +NO <sub>3</sub> TOTAL (MG/L AS N)	NITRO-GEN, NO <sub>2</sub> +NO <sub>3</sub> TOTAL (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	
JUN 06...	0.16	0.04	<0.01	0.20	0.40	0.05	0.07	0.01	0.01	--	--	
JUL 17...	--	<0.02	0.01	0.30	0.40	0.06	<0.01	<0.01	<0.01	7.4	0.1	
AUG 27...	--	<0.02	<0.01	0.40	0.90	<0.05	0.03	<0.01	<0.01	7.0	0.3	

## 401110106244800 WOLFORD MOUNTAIN RESERVOIR AT INFLOW NEAR KREMMLING, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, DIS- RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- RECOV- ERABLE (UG/L AS BA)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)		
	JUN 06...	750	<1	<1	<100	27	<10	<1	<1	1	<1
JUL 17...	70	<1	1	<100	51	<10	<1	<1	<1	<1	<1
AUG 27...	50	2	2	<100	64	<10	<1	<1	<1	<1	<1
DATE	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	
	JUN 06...	<1	1	<1	1100	83	1	<1	<10	40	11
JUL 17...	<1	1	1	130	43	<1	<1	10	40	27	
AUG 27...	<1	<1	<1	300	80	<1	<1	20	70	60	
DATE	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	
	JUN 06...	<0.10	<0.1	<1	3	<1	<1	<1	<10	<3	
JUL 17...	<0.10	<0.1	2	1	1	1	<1	<1	<10	7	
AUG 27...	<0.10	<0.1	3	2	1	1	<1	<1	<10	<3	

## MUDDY CREEK BASIN

**400812106254800 ALKALI SLOUGH #2 AT WOLFORD MOUNTAIN RESERVOIR NEAR KREMMLING, CO**  
**WATER-QUALITY RECORDS**

LOCATION.--Lat. 40°08'12", long 106°25'48", in NW<sup>1/4</sup> NW<sup>1/4</sup> sec. 18, T.2 N, R.81 W., Grand County, Hydrologic Unit 14010001, 5 mi north of Kremmling.

PERIOD OF RECORD.--July 1996 to current year.

REMARKS.--Samples were collected approximately 100 yards from mouth.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SPE-CIFIC	PH	TEMPER-	TUR-	OXYGEN,	HARD-NESS	CALCIUM	MAGNE-SIUM,	SODIUM,	SODIUM
		DUCT-ANCE	(STAND-ARD UNITS)	ATURE (DEG C)	BID-WATER	DIS-SOLVED (NTU)	(MG/L)	TOTAL (MG/L)	DIS-SOLVED AS CACO <sub>3</sub>	DIS-SOLVED AS CA	DIS-SOLVED AS MG
JUL 16...	1500	2570	8.0	16.5	4.4	7.2	1700	560	76	26	0.3
		POTAS-SIUM, DIS-SOLVED (MG/L AS PERCENT)	ALKA-LINITY (MG/L AS K)	SULFATE (CACO <sub>3</sub> )	CHLO-RIDE, DIS-SOLVED (MG/L AS SO <sub>4</sub> )	FLUO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, AT 180 DEG. C (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C (MG/L AS SIO <sub>2</sub> )	SOLIDS, SUM OF CONSTITUENTS, (MG/L AS SIO <sub>2</sub> )	NITRO-GEN, ORGANIC GEN, TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
JUL 16...	3	5.4	234	1500	5.0	1.0	11	2520	2330	0.71	0.18
		NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA (MG/L AS N)	NITRO-GEN, AMMONIA + DIS-SOLVED (MG/L AS N)	NITRO-GEN, MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, NO <sub>2</sub> +NO <sub>3</sub> TOTAL (MG/L AS N)	NITRO-GEN, PHOS-PHORUS (MG/L AS P)	PHOS-PHORUS (MG/L AS P)	PHOS-PHORUS (MG/L AS P)	CARBON, ORGANIC SUS-PENDED (MG/L AS C)	CARBON, ORGANIC TOTAL (MG/L AS C)
JUL 16...	0.18	0.22	0.01	0.40	0.40	0.31	0.02	<0.01	0.02	7.3	2.0
		ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMUM, TOTAL RECOV-ERABLE (UG/L AS CD)	CADMUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CO)
JUL 16...	190	1	<100	21	<10	200	<1	<1	<1	<1	<1
		COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM, TOTAL RECOV-ERABLE (UG/L AS LI)	MANGANESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY, TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY, TOTAL RECOV-ERABLE (UG/L AS HG)
JUL 16...	2	2	710	10	<1	<1	60	50	51	<0.1	<0.1
		MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELENIUM, TOTAL RECOV-ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	STRONIUM, TOTAL RECOV-ERABLE (UG/L AS SR)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
JUL 16...	10	9	16	14	28	<1	<1	5100	<10	24	

**400841106240600 WOLFORD MOUNTAIN RESERVOIR AT MIDLAKE NEAR KREMMLING, CO**  
**WATER-QUALITY RECORDS**

LOCATION.--Lat. 40°08'41", long 106°24'06", in NW<sup>1/4</sup> NW<sup>1/4</sup> sec. 18, T.2 N, R.81 W., Grand County, Hydrologic Unit 14010001, 5 mi north of Kremmling.

DRAINAGE AREA.--270 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1995 to current year.

REMARKS.--Samples were collected near-surface and near-bottom, at Midlake.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM-PLING	SPE-CIFIC CON-DUCT-	PH (STAND-ARD)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
		DEPTH (FEET)	ANCE (US/CM)	UNITS	ARD UNITS	
<b>OCT</b>						
19...	1000	0.1	605	7.8	10.5	5.6
19...	1001	5.0	612	7.8	10.5	5.4
19...	1002	10	612	7.8	10.5	5.3
19...	1003	15	613	7.8	10.5	5.2
19...	1004	20	613	7.8	10.5	5.2
19...	1005	25	613	7.8	10.5	5.2
19...	1006	30	613	7.8	10.5	5.2
19...	1007	35	619	7.8	10.5	4.7
<b>JUN</b>						
06...	0925	0.1	301	8.1	13.0	8.2
06...	0926	5.0	306	8.2	13.0	8.0
06...	0927	10	306	8.2	13.0	7.9
06...	0928	15	306	8.2	13.0	7.9
06...	0929	20	307	8.2	13.0	7.9
06...	0930	20	308	8.0	12.0	7.5
06...	0931	30	308	8.0	11.0	7.2
06...	0932	40	348	7.9	10.5	7.0
06...	0933	50	332	7.9	9.5	6.9
06...	0934	60	395	7.9	9.5	6.7
<b>JUL</b>						
17...	1145	0.1	350	7.9	20.0	6.1
17...	1146	5.0	350	7.9	19.5	6.0
17...	1147	10	352	7.9	19.5	6.1
17...	1148	15	354	7.8	19.0	6.0
17...	1149	20	363	7.8	19.0	5.8
17...	1150	25	401	7.6	15.5	4.7
17...	1151	30	423	7.5	14.0	4.5
17...	1152	40	439	7.5	12.0	4.3
17...	1153	50	455	7.4	11.0	3.6
17...	1154	60	475	7.4	10.0	3.4
<b>AUG</b>						
27...	1255	0.1	452	8.0	18.0	6.7
27...	1256	5.0	452	8.0	18.0	6.7
27...	1257	10	452	8.0	18.0	6.7
27...	1258	15	452	8.0	18.0	6.7
27...	1259	20	451	8.0	18.0	6.7
27...	1300	25	452	8.0	18.0	6.6
27...	1301	30	506	7.5	16.5	4.0
27...	1302	40	560	7.4	14.0	1.5
27...	1303	50	515	7.4	11.0	1.3
27...	1304	60	542	7.4	10.5	1.2

DATE	TIME	SAM-PLING	SPE-CIFIC CON-DUCT-	PH (STAND-ARD)	TEMPER-ATURE (DEG C)	TUR-BID-	TRANS-PAR-	COLI-FORM,	HARD-FECAL,	MAGNE-
		DEPTH (FEET)	ANCE (US/CM)	UNITS	(DEG C)	ITY	(SECCHI DISK)	OXYGEN, DIS-SOLVED (MG/L)	NESS (0.7 TOTAL MG/L)	SUM, DIS-SOLVED (MG/L)
<b>OCT</b>										
19...	1015	0.1	605	7.8	10.5	1.3	121	5.6	<1	260 67 22
19...	1030	35	619	7.8	10.5	1.6	--	4.7	--	260 68 22
<b>JUN</b>										
06...	0945	0.1	301	8.1	13.0	--	32	8.2	K6	120 35 9
06...	1000	60	395	7.9	9.5	--	--	6.7	--	140 38 11
<b>JUL</b>										
17...	1200	0.1	350	7.9	20.0	1.1	100	6.1	<1	150 42 12
17...	1215	60	475	7.4	10.0	1.1	--	3.4	--	200 50 19
<b>AUG</b>										
27...	1315	0.1	452	8.0	18.0	1.0	88	6.7	<1	190 50 15
27...	1330	60	542	7.4	10.5	1.1	--	1.2	--	220 54 20

K-Based on non-ideal colony count.

## MUDDY CREEK BASIN

400841106240600 WOLFORD MOUNTAIN RESERVOIR AT MIDLAKE NEAR KREMMLING, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM PERCENT	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L AS)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L AS)	NITRO- GEN, TOTAL (MG/L AS N)	
OCT													
19...	19	0.5	14	2.3	123	180	1.8	0.1	8.4	403	375	0.50	
19...	19	0.5	14	2.3	123	180	1.6	0.1	8.4	408	376	0.90	
JUN													
06...	10	0.4	15	1.9	83	67	1.2	0.1	8.7	211	183	0.58	
06...	12	0.4	15	1.8	82	86	1.2	0.2	8.9	228	209	0.53	
JUL													
17...	11	0.4	13	2.2	90	76	1.1	0.2	8.6	216	208	0.47	
17...	15	0.5	14	2.3	93	140	1.4	0.2	9.1	313	295	0.66	
AUG													
27...	14	0.4	14	2.3	107	110	1.5	0.2	--	284	258	0.47	
27...	17	0.5	14	2.3	100	160	1.7	0.2	--	332	318	0.76	
DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, PHOS- PHORUS DIS- SOLVED (MG/L AS P)	NITRO- GEN, PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)	
OCT													
19...	0.39	0.39	0.11	<0.01	0.50	0.50	<0.05	0.03	0.02	0.02	5.8	<0.1	
19...	0.79	0.29	0.11	<0.01	0.40	0.90	<0.05	0.04	0.02	0.02	--	--	
JUN													
06...	0.47	0.27	0.03	<0.01	0.30	0.50	0.08	0.06	<0.01	<0.01	1.8	<0.1	
06...	0.35	0.25	0.05	<0.01	0.30	0.40	0.13	0.05	0.01	0.02	--	--	
JUL													
17...	0.37	0.27	0.03	0.01	0.30	0.40	0.07	<0.01	<0.01	0.02	1.2	<0.1	
17...	0.27	0.27	0.03	0.01	0.30	0.30	0.36	0.04	<0.01	0.03	--	--	
AUG													
27...	0.37	0.37	0.03	0.01	0.40	0.40	0.07	0.03	<0.01	<0.01	3.8	0.2	
27...	0.32	0.32	0.08	0.02	0.40	0.40	0.36	0.05	0.02	0.03	--	--	
DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ARSENIC TOTAL DIS- SOLVED (UG/L AS AS)	ARSENIC TOTAL DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)		
OCT													
19...	30	1	1	100	100	<10	<1	<1	<1	<1	<1	<1	
19...	40	1	1	200	<100	<10	<1	<1	<1	<1	<1	<1	
JUN													
06...	190	<1	<1	<100	45	<10	<1	<1	<1	<1	<1	<1	
06...	280	<1	<1	<100	44	<10	<1	<1	<1	<1	<1	<1	
JUL													
17...	80	<1	2	<100	52	<10	<1	<1	<1	<1	<1	<1	
17...	70	<1	1	<100	46	<10	<1	<1	<1	<1	<1	<1	
AUG													
27...	30	1	1	<100	60	<10	<1	<1	<1	<1	<1	<1	
27...	50	1	1	<100	47	<10	<1	<1	<1	<1	<1	<1	
DATE	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, TOTAL SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)			
OCT													
19...	<1	<1	<1	90	70	<1	<1	20	90	90	90	90	
19...	<1	1	<1	120	60	<1	<1	20	90	90	90	90	
JUN													
06...	<1	2	1	260	38	<1	<1	<10	10	10	<1		
06...	<1	2	1	370	44	<1	<1	10	30	30	4		
JUL													
17...	<1	<1	1	120	34	<1	<1	10	20	20	12		
17...	<1	<1	1	210	73	<1	<1	10	130	130	130		
AUG													
27...	<1	<1	1	50	14	<1	<1	20	<10	<10	3		
27...	<1	<1	<1	340	140	<1	<1	20	280	280	290		

**400841106240600 WOLFORD MOUNTAIN RESERVOIR AT MIDLAKE NEAR KREMMLING, CO--Continued**

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	MERCURY	MERCURY	MOLYB-	NICKEL,	SELE-	SILVER,	ZINC,	ZINC,	
	TOTAL RECOV- ERABLE (UG/L AS HG)	TOTAL RECOV- ERABLE (UG/L AS HG)	DENUM, RECOV- ERABLE (UG/L AS MO)	TOTAL RECOV- ERABLE (UG/L AS NI)	NIUM, RECOV- ERABLE (UG/L AS SE)	TOTAL SOLVED (UG/L AS SE)	SOLVED RECOV- ERABLE (UG/L AS AG)	TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, RECOV- ERABLE (UG/L AS ZN)
OCT									
19...	<0.1	<0.1		1	2	2	<1	<1	<10
19...	<0.1	<0.1		<1	2	2	<1	<1	<10
JUN									
06...	<0.1	<0.1		1	2	1	<1	<1	<10
06...	<0.1	<0.1		<1	3	2	<1	<1	<10
JUL									
17...	<0.1	<0.1		2	2	1	<1	<1	<10
17...	<0.1	<0.1		2	2	3	<1	<1	<10
AUG									
27...	<0.1	<0.1		2	2	1	<1	<1	<10
27...	<0.1	<0.1		2	2	3	2	<1	<10

## MUDDY CREEK BASIN

**09041395 WOLFORD MOUNTAIN RESERVOIR NEAR KREMMLING, CO**

LOCATION.--Lat. 40°06'46", long 106°24'52", in SW<sup>1/4</sup>NE<sup>1/4</sup> sec.25, T.2 N, R.81 W., Grand County, Hydrologic Unit 14010001, in outlet tower at dam, 5 mi north of Kremmling.

**RESERVOIR ELEVATIONS AND CONTENTS RECORDS**

DRAINAGE AREA.--270 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1995 to current year.

GAGE.--Non-recording gage read at irregular intervals from 1 to 7 days. Datum of gage is 7,500.00 ft above sea level; gage readings have been reduced to elevations above sea level.

REMARKS.--Reservoir is formed by an earth-filled dam. Storage began May 1995; dam completed May 1995. Usable capacity, 60,000 acre-ft, at elevation 7,485 ft, crest of spillway. No dead storage. Figures given represent total contents. Water-quality sampling at three sites in reservoir.

COOPERATION.--Colorado River Water Conservation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents 63,920 acre-ft, July 21, 1996, elevation, 7,487.70 ft; minimum observed since appreciable storage was first obtained, 27,750 acre-ft, Nov. 10, 17, 1995, elevation 7,455.90 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 63,920 acre-ft, July 21, 1996, elevation, 7,487.70 ft; minimum, 27,750 acre ft, Nov. 10, 17, 1995, elevation 7,455.90 ft.

## MONTHEND ELEVATION AND CONTENTS AT 0800, WATER YEAR MAY 1995 TO SEPTEMBER 1995

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
June 30. . . . .	7,456.60	28,310	-
July 31. . . . .	7,462.20	33,170	+4,860
Aug. 31. . . . .	7,461.40	32,440	-730
Sept. 30. . . . .	7,458.80	30,140	-2,300
WTR YR 1995(partial). . . . .			+1,830

## MONTHEND ELEVATION AND CONTENTS AT 0800, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30. . . . .	7,458.80	30,140	-
Oct. 31. . . . .	7,456.30	28,070	-2,070
Nov. 30. . . . .	7,456.30	28,070	0
Dec. 31. . . . .	7,456.90	28,550	+480
CAL YR 1995(partial). . . . .			+240
Jan. 31. . . . .	7,456.90	28,550	0
Feb. 29. . . . .	7,456.90	28,550	0
Mar. 31. . . . .	7,456.30	28,070	-480
Apr. 30. . . . .	7,457.10	28,710	+640
May 31. . . . .	7,480.90	54,340	+25,630
June 30. . . . .	7,487.20	63,190	+8,850
July 31. . . . .	7,487.30	63,330	+140
Aug. 31. . . . .	7,481.90	55,690	-7,640
Sept. 30. . . . .	7,477.90	50,430	-5,260
WTR YR 1996. . . . .			+20,290

**09041395 WOLFORD MOUNTAIN RESERVOIR NEAR KREMMLING, CO****WATER-QUALITY RECORDS**

LOCATION.--Lat. 40°06'46", long 106°24'52", in SW<sup>1/4</sup>NE<sup>1/4</sup> sec.25, T.2 N, R.81 W., Grand County, Hydrologic Unit 14010001, 5 mi north of Kremmling.

DRAINAGE AREA.--270 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1995 to current year.

REMARKS.--Samples were collected near-surface and near-bottom, near dam.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM-PLING	SPE-CIFIC CON-DUCTION	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
		DEPTH (FEET)	(US/CM)			
<b>OCT</b>						
19...	0845	0.1	616	7.8	10.0	5.1
19...	0846	5.0	620	7.8	10.0	5.1
19...	0847	10	620	7.8	10.0	5.0
19...	0848	15	621	7.8	10.0	5.0
19...	0849	20	621	7.8	10.0	5.0
19...	0850	25	621	7.8	10.0	5.0
19...	0851	30	622	7.8	10.0	4.9
19...	0852	40	622	7.8	10.0	4.9
19...	0853	50	625	7.8	10.0	4.9
19...	0854	60	960	7.4	11.0	0.2
19...	0855	70	1030	7.3	10.5	0.1
<b>JUN</b>						
06...	1128	0.1	313	8.1	14.0	8.1
06...	1129	5.0	313	8.1	14.0	8.1
06...	1130	10	313	8.1	14.0	8.1
06...	1131	15	313	8.1	14.0	8.1
06...	1132	20	313	8.1	14.0	8.0
06...	1133	25	313	8.0	13.0	7.7
06...	1134	30	314	7.9	11.5	7.2
06...	1135	40	315	7.9	11.0	6.9
06...	1136	50	320	7.9	9.0	7.0
06...	1137	60	343	7.8	9.0	6.7
06...	1138	70	403	7.8	8.5	6.2
06...	1139	80	499	7.8	8.0	6.3
06...	1140	90	523	7.8	8.0	5.7
<b>JUL</b>						
17...	1040	0.1	338	7.4	19.5	6.3
17...	1041	5.0	339	7.9	19.5	6.3
17...	1042	10	338	7.9	19.0	6.3
17...	1043	15	341	7.9	19.0	6.1
17...	1044	20	343	7.6	15.5	5.0
17...	1045	25	338	7.6	14.0	5.0
17...	1046	30	341	7.6	13.0	5.2
17...	1047	40	355	7.6	11.0	5.4
17...	1048	50	367	7.6	10.5	5.5
17...	1049	60	397	7.6	10.0	5.2
17...	1050	70	437	7.6	9.5	4.9
17...	1051	80	483	7.6	9.0	4.5
17...	1052	90	467	7.5	9.0	4.1
<b>AUG</b>						
27...	1055	0.1	453	7.9	18.0	6.2
27...	1056	5.0	453	7.9	17.5	6.2
27...	1057	10	451	7.9	17.5	6.1
27...	1058	15	450	7.9	17.0	6.0
27...	1059	20	450	7.9	17.0	6.0
27...	1100	25	450	7.9	17.0	6.0
27...	1101	30	455	7.8	17.0	5.8
27...	1102	40	476	7.5	13.0	2.4
27...	1103	50	493	7.5	10.5	2.5
27...	1104	60	502	7.5	10.0	2.4
27...	1105	70	546	7.4	9.5	2.0
27...	1106	80	618	7.4	9.5	1.7
27...	1107	90	837	7.4	9.0	1.4
27...	1108	100	>1000	7.3	8.5	1.3

## MUDDY CREEK BASIN

## 09041395 WOLFORD MOUNTAIN RESERVOIR NEAR KREMMLING, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SPE-CIFIC				TRANS-PAR-ENCY			COLI-FORM, FECAL,		HARD-NESS	CALCIUM	MAGNE-SIUM,	
		SAM-PLING	CON-DUCT-ANCE	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	(SECCHI DISK)	OXYGEN, DIS-SOLVED (MG/L)	UM-MF (COLS./100 ML)	TOTAL (MG/L AS CACO3)	DIS-SOLVED (MG/L AS CA)	DIS-SOLVED (MG/L AS MG)		
OCT														
19...	0900	0.1	616	7.8	10.0	1.2	137	5.1	<1	280	73	23		
19...	0915	70	1030	7.3	10.5	1.7	--	0.1	--	510	140	38		
JUN														
06...	1145	0.1	313	8.1	14.0	--	43.0	8.1	K1	130	36	9.2		
06...	1200	90	523	7.8	8.0	--	--	5.7	--	210	57	17		
JUL														
17...	1100	0.1	338	7.4	19.5	1.5	111	6.3	<1	150	40	11		
17...	1115	90	467	7.5	9.0	1.6	--	4.1	--	230	63	18		
AUG														
27...	1115	0.1	453	7.9	18.0	1.0	104	6.2	<1	180	48	15		
27...	1130	100	>1000	7.3	8.5	2.0	--	1.3	--	310	85	24		
SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM RATIO	SODIUM PERCENT	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, SOLVED (MG/L AS SIO2)	SOLID(S) RESIDUE AT 180 DEG. C	SOLID(S) SUM OF TUENTS, DIS-SOLVED (MG/L)	SOLID(S) TOTAL (MG/L AS N)	NITRO-GEN, TION		
OCT														
19...	19	0.5	13	2.2	122	190	1.6	0.1	8.5	414	391	0.70		
19...	23	0.4	9	2.9	122	420	2.2	0.2	10	774	711	0.86		
JUN														
06...	10	0.4	14	2.0	84	68	1.2	0.2	8.6	205	186	0.57		
06...	17	0.5	15	2.6	107	140	1.9	0.2	8.8	337	310	0.60		
JUL														
17...	10	0.4	13	2.1	87	72	1.1	0.2	8.7	210	198	0.57		
17...	15	0.4	12	2.4	95	160	1.6	0.2	9.2	343	328	0.66		
AUG														
27...	14	0.5	14	2.2	107	110	1.5	0.2	8.6	278	264	0.48		
27...	20	0.5	12	2.5	102	270	1.9	0.2	9.2	494	477	0.81		
NITRO-GEN, ORGANIC TOTAL	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, MONIA + ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, MONIA + ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS (MG/L AS P)	PHOS-PHORUS (MG/L AS P)	PHOS-PHORUS (MG/L AS P)	CHLOR-A (UG/L)	CHLOR-B (UG/L)	CHLOR-A (UG/L)	CHLOR-B (UG/L)	
OCT														
19...	0.59	0.39	0.11	<0.010	0.50	0.70	<0.05	0.02	0.02	0.02	2.4	<0.1		
19...	0.41	0.31	0.39	<0.010	0.70	0.80	0.06	0.10	0.08	0.06	--	--		
JUN														
06...	0.47	0.27	0.03	<0.010	0.30	0.50	0.07	0.04	<0.01	<0.01	2.5	0.1		
06...	0.33	0.33	0.07	<0.010	0.40	0.40	0.20	0.03	0.03	0.03	--	--		
JUL														
17...	0.46	0.26	0.04	0.010	0.30	0.50	0.07	0.02	<0.01	<0.01	0.6	<0.1		
17...	0.27	0.27	0.03	0.010	0.30	0.30	0.36	0.05	<0.01	0.03	--	--		
AUG														
27...	0.40	--	<0.02	0.010	0.40	0.40	0.08	0.01	<0.01	<0.01	2.4	0.2		
27...	0.27	0.27	0.03	0.020	0.30	0.30	0.51	0.03	0.01	0.02	--	--		
ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	CADMIUM, TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)						
OCT														
19...	20	1	1	<100	<100	<10	<1	<1	<1	<1	<1	<1		
19...	20	2	2	100	100	<10	<1	<1	<1	<1	<1	<1		
JUN														
06...	220	<1	<1	<100	46	<10	<1	<1	<1	<1	<1	<1		
06...	140	<1	1	<100	52	<10	<1	<1	<1	<1	<1	<1		
JUL														
17...	90	<1	1	<100	52	<10	<1	<1	<1	<1	<1	<1		
17...	70	<1	1	<100	48	<10	<1	<1	<1	<1	<1	<1		
AUG														
27...	30	1	<1	<100	59	<10	<1	<1	<1	<1	<1	<1		
27...	30	1	<1	<100	46	<10	<1	<1	<1	<1	<1	<1		

K-Based on non-ideal colony count.

## 09041395 WOLFORD MOUNTAIN RESERVOIR NEAR KREMMLING, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)
	<1	1	<1	100	50	<1	<1	20	100	90
OCT										
19...	<1	1	<1	410	190	<1	<1	30	250	240
JUN										
06...	<1	2	1	230	39	<1	<1	<10	10	<1
06...	<1	2	1	200	24	<1	<1	20	30	5
JUL										
17...	<1	1	1	110	46	<1	<1	<10	20	10
17...	<1	1	2	120	34	<1	<1	20	120	120
AUG										
27...	<1	1	<1	50	15	<1	<1	20	10	5
27...	<1	<1	<1	160	58	<1	<1	30	300	330
<hr/>										
	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
OCT										
19...	<0.1	<0.1	2	2	2	<1	<1	<10	<10	<10
19...	<0.1	<0.1	5	4	11	7	<1	<10	<10	<10
JUN										
06...	<0.1	<0.1	<1	3	1	1	<1	<10	6	
06...	<0.1	<0.1	2	3	3	3	<1	<10	<3	
JUL										
17...	<0.1	<0.1	2	2	1	1	<1	<10	<3	
17...	<0.1	<0.1	3	2	4	5	<1	<10	4	
AUG										
27...	<0.1	<0.1	3	2	1	1	<1	<10	4	
27...	<0.1	<0.1	5	3	7	8	<1	<10	<3	

## MUDDY CREEK BASIN

**09041400 MUDDY CREEK BELOW WOLFORD MOUNTAIN RESERVOIR NEAR KREMMLING, CO**

LOCATION.--Lat 40°06'31", long 106°24'48", in NW<sup>1/4</sup>SE<sup>1/4</sup> sec. 25, T.2 N., R.81 W., Grand County, Hydrologic Unit 14010001, on left bank 1,500 ft below Wolford Mountain Reservoir, near Kremmling.

DRAINAGE AREA.--270 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--July 1995 to September 1996.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 7,380 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow is entirely regulated by Wolford Mountain Reservoir.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	35	e54
2	---	---	---	---	---	---	---	---	---	---	34	e53
3	---	---	---	---	---	---	---	---	---	---	37	53
4	---	---	---	---	---	---	---	---	---	---	35	53
5	---	---	---	---	---	---	---	---	---	---	38	53
6	---	---	---	---	---	---	---	---	---	---	36	53
7	---	---	---	---	---	---	---	---	---	---	37	54
8	---	---	---	---	---	---	---	---	---	---	37	55
9	---	---	---	---	---	---	---	---	---	---	30	49
10	---	---	---	---	---	---	---	---	---	---	54	56
11	---	---	---	---	---	---	---	---	---	---	61	56
12	---	---	---	---	---	---	---	---	---	---	64	56
13	---	---	---	---	---	---	---	---	---	---	62	112
14	---	---	---	---	---	---	---	---	---	---	63	60
15	---	---	---	---	---	---	---	---	---	---	78	51
16	---	---	---	---	---	---	---	---	---	---	63	44
17	---	---	---	---	---	---	---	---	---	---	27	44
18	---	---	---	---	---	---	---	---	---	---	52	44
19	---	---	---	---	---	---	---	---	---	---	55	45
20	---	---	---	---	---	---	---	---	---	---	54	45
21	---	---	---	---	---	---	---	---	---	---	52	45
22	---	---	---	---	---	---	---	---	---	---	47	45
23	---	---	---	---	---	---	---	---	---	---	31	45
24	---	---	---	---	---	---	---	---	---	---	10	45
25	---	---	---	---	---	---	---	---	---	---	5.3	45
26	---	---	---	---	---	---	---	---	---	---	5.2	44
27	---	---	---	---	---	---	---	---	---	---	5.2	44
28	---	---	---	---	---	---	---	---	---	---	4.7	44
29	---	---	---	---	---	---	---	---	---	---	e37	18
30	---	---	---	---	---	---	---	---	---	---	e37	45
31	---	---	---	---	---	---	---	---	---	---	e38	42
TOTAL	---	---	---	---	---	---	---	---	---	---	1217.4	1535
MEAN	---	---	---	---	---	---	---	---	---	---	39.3	51.2
MAX	---	---	---	---	---	---	---	---	---	---	78	112
MIN	---	---	---	---	---	---	---	---	---	---	4.7	44
AC-FT	---	---	---	---	---	---	---	---	---	---	2410	3040

e-Estimated.

## 09041400 MUDDY CREEK BELOW WOLFORD MOUNTAIN RESERVOIR NEAR KREMMLING, CO

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e44	52	e4.1	e12	21	21	60	294	113	107	80	171
2	e43	51	3.5	e12	21	21	77	e211	113	100	97	170
3	47	49	2.8	e12	21	21	161	e148	121	61	115	169
4	61	49	3.8	e12	21	23	250	e134	163	61	115	142
5	62	49	3.5	e12	21	27	273	e199	190	61	116	114
6	61	51	e3.5	e12	21	27	272	e199	208	63	116	116
7	59	43	e3.5	e12	21	28	271	e260	266	63	115	115
8	59	30	e3.5	e12	21	28	271	e260	318	63	129	115
9	59	28	e3.5	e13	21	28	271	236	371	63	178	114
10	58	27	e3.5	e13	21	28	272	314	410	63	193	110
11	42	27	e3.5	e11	21	28	271	452	410	67	193	92
12	44	28	e3.5	11	21	28	271	470	327	66	192	112
13	45	27	e3.5	11	21	28	272	529	197	61	192	113
14	45	e26	e3.5	11	21	28	271	599	118	60	192	113
15	44	e26	e3.5	11	21	28	270	602	120	59	144	112
16	44	e26	e3.5	10	21	28	269	603	121	56	162	112
17	44	e26	e3.5	14	21	e28	269	612	119	54	193	113
18	44	e26	e3.5	20	21	42	270	620	118	52	195	114
19	44	e26	e12	e20	21	58	269	627	118	50	176	115
20	45	e26	e12	e20	21	57	269	621	119	50	116	110
21	45	e26	e12	e20	21	57	268	462	105	50	116	112
22	45	e26	e12	e20	21	56	268	425	76	50	136	111
23	45	e26	e12	e21	21	54	265	303	77	49	175	93
24	45	e17	e12	e21	21	55	263	224	76	49	174	50
25	73	e17	e12	e21	21	56	142	223	76	50	174	49
26	49	e4.9	e12	e21	21	58	222	225	76	49	102	49
27	49	e4.9	e12	21	21	58	293	226	77	51	174	49
28	52	3.9	e12	21	21	59	296	242	96	51	176	48
29	52	3.5	e12	20	21	59	290	262	108	51	180	48
30	52	e3.5	e12	21	---	59	e291	112	107	63	168	48
31	52	---	e12	21	---	59	---	113	---	80	172	---
TOTAL	1553	825.7	219.2	489	609	1235	7477	10807	4914	1873	4756	3099
MEAN	50.1	27.5	7.07	15.8	21.0	39.8	249	349	164	60.4	153	103
MAX	73	52	12	21	21	59	296	627	410	107	195	171
MIN	42	3.5	2.8	10	21	21	60	112	76	49	80	48
AC-FT	3080	1640	435	970	1210	2450	14830	21440	9750	3720	9430	6150

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1996, BY WATER YEAR (WY)

MEAN	50.1	27.5	7.07	15.8	21.0	39.8	249	349	164	60.4	96.3	77.2
MAX	50.1	27.5	7.07	15.8	21.0	39.8	249	349	164	60.4	153	103
(WY)	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996
MIN	50.1	27.5	7.07	15.8	21.0	39.8	249	349	164	60.4	39.3	51.2
(WY)	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996	1995	1995

## SUMMARY STATISTICS

## FOR 1996 WATER YEAR

ANNUAL TOTAL	37856.9											
ANNUAL MEAN	103											
HIGHEST ANNUAL MEAN												
LOWEST ANNUAL MEAN												
HIGHEST DAILY MEAN												
LOWEST DAILY MEAN												
ANNUAL SEVEN-DAY MINIMUM												
INSTANTANEOUS PEAK FLOW												
INSTANTANEOUS PEAK STAGE												
ANNUAL RUNOFF (AC-FT)	75090											
10 PERCENT EXCEEDS	269											
50 PERCENT EXCEEDS	54											
90 PERCENT EXCEEDS	12											

e-Estimated.

## MUDDY CREEK BASIN

**09041400 MUDDY CREEK BELOW WOLFORD MOUNTAIN RESERVOIR NEAR KREMMLING, CO--Continued****WATER-QUALITY RECORDS**

PERIOD OF RECORD.--July 1995 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Oct. 1995 to current year.

WATER TEMPERATURE: Oct. 1995 to current year.

INSTRUMENTATION.--Water-quality monitor from Oct. 1995 to current year.

REMARKS.--Water temperature and specific conductance records are rated good. Dissolved oxygen records are good, except for the periods: April 3-17, July 2-16, and Sept. 10-27, which are rated fair.

EXTREMES FOR CURRENT PERIOD.--

SPECIFIC CONDUCTANCE: Maximum, 1910 microsiemens, Oct. 20; minimum daily, 317 microsiemens, July 11.

WATER TEMPERATURE: Maximum 18.0°C, July 30; minimum, 1.1°C, Feb. 2.

DISSOLVED OXYGEN: Maximum, 11.0 mg/L, Jan. 17; minimum, 4.9 mg/L, July 31.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR-BID- ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	
OCT 25...	1530	44	803	8.4	9.5	2.2	9.5	370	98	30
NOV 30...	1300	3.5	745	8.2	5.0	1.5	9.9	320	81	28
DEC 05...	1200	3.6	762	8.5	5.0	1.2	12.2	310	79	28
JAN 11...	1200	11	720	--	2.5	1.3	9.0	330	84	28
FEB 27...	1600	20	720	7.6	3.0	0.50	7.5	310	78	28
MAR 27...	1345	59	700	8.8	3.0	0.50	7.6	320	82	28
APR 22...	1530	281	692	7.6	3.0	1.4	10.3	320	81	28
MAY 21...	1500	429	493	7.9	8.0	16	9.5	210	56	18
JUN 05...	1420	176	377	8.5	10.0	--	8.6	150	42	12
JUL 16...	1730	52	356	8.1	16.0	1.2	7.2	150	41	11
AUG 28...	1430	156	486	8.4	13.5	1.8	8.2	200	53	16
SEP 03...	1530	165	487	8.2	14.5	1.6	8.1	200	53	17
SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	
OCT 25...	23	12	0.5	2.6	128	290	2.4	0.2	9.4	568
NOV 30...	37	20	0.9	2.4	136	250	4.4	0.2	8.4	506
DEC 05...	36	20	0.9	2.4	137	250	4.3	0.2	8.4	522
JAN 11...	29	16	0.7	2.4	136	240	2.8	0.3	8.8	502
FEB 27...	27	16	0.7	2.5	138	230	2.6	0.2	8.8	514
MAR 27...	26	15	0.6	2.3	142	230	2.4	0.2	9.2	488
APR 22...	27	15	0.7	2.9	137	230	2.7	0.2	9.1	462
MAY 21...	19	16	0.6	2.8	110	130	2.1	0.2	8.2	320
JUN 05...	13	15	0.5	2.1	90	93	1.4	0.2	8.7	258
JUL 16...	11	14	0.4	2.2	87	86	1.4	0.2	8.6	226
AUG 28...	15	14	0.5	2.1	102	140	1.6	0.2	9.0	306
SEP 03...	16	15	0.5	2.2	105	140	1.5	0.1	9.1	318

**09041400 MUDDY CREEK BELOW WOLFORD MOUNTAIN RESERVOIR NEAR KREMMLING, CO--Continued**

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

	NITRO-GEN, AM-MONIA + ORGANIC	NITRO-GEN, AM-MONIA + ORGANIC	NITRO-GEN,	PHOS-PHORUS	PHOS-PHORUS	PHOS-PHORUS	CARBON, ORGANIC	CARBON, ORGANIC	CARBON, ORGANIC
DATE	TOTAL (MG/L AS N)	DIS. (MG/L AS N)	TOTAL (MG/L AS N)	TOTAL (MG/L AS P)	SOLVED (MG/L AS P)	SOLVED (MG/L AS P)	TOTAL (MG/L AS C)	DIS-SOLVED (MG/L AS C)	SUS-PENDED (MG/L AS C)
OCT 25...	0.70	0.70	0.76	0.11	0.06	0.05	--	--	--
NOV 30...	0.50	0.50	0.70	0.06	0.02	0.02	--	--	--
DEC 05...	0.40	0.50	0.62	0.01	0.02	0.02	8.0	7.6	--
JAN 11...	0.80	0.50	0.96	0.03	0.02	0.02	--	--	--
FEB 27...	0.50	0.50	0.70	0.03	0.02	0.02	--	--	--
MAR 27...	0.50	0.40	0.64	0.03	0.04	0.02	--	--	--
APR 22...	0.50	0.40	0.68	0.03	0.02	0.02	--	--	--
MAY 21...	0.40	0.40	0.54	0.06	0.02	0.02	--	--	--
JUN 05...	0.40	0.40	0.52	0.04	0.02	0.02	--	--	--
JUL 16...	0.30	0.30	0.43	<0.01	<0.01	0.01	--	6.8	0.3
AUG 28...	0.30	0.30	0.59	0.02	0.02	0.02	--	6.7	<0.1
SEP 03...	0.30	0.30	0.52	<0.01	0.02	0.02	--	6.7	<0.1

## MUDDY CREEK BASIN

## 09041400 MUDDY CREEK BELOW WOLFORD MOUNTAIN RESERVOIR NEAR KREMMLING, CO--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	ALUM- INUM, TOTAL RECOV- ERABLE	ARSENIC (UG/L AS AL)	BARIUM, TOTAL DIS- ERABLE SOLVED	BARIUM, (UG/L AS BA)	BERYL- LIUM, TOTAL RECOV- ERABLE SOLVED	BORON, (UG/L AS BE)	CADMIUM TOTAL RECOV- ERABLE SOLVED	CADMIUM TOTAL DIS- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE SOLVED	CHRO- MIUM, TOTAL DIS- ERABLE (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)
	OCT 25...	--	--	--	--	--	--	--	--	--	--
NOV 30...	--	--	--	--	--	--	--	--	--	--	--
DEC 05...	--	--	--	--	--	--	--	--	--	--	--
JAN 11...	--	--	--	--	--	--	--	--	--	--	--
FEB 27...	--	--	--	--	--	--	--	--	--	--	--
MAR 27...	--	--	--	--	--	--	--	--	--	--	--
APR 22...	--	--	--	--	--	--	--	--	--	--	--
MAY 21...	--	--	--	--	--	--	--	--	--	--	--
JUN 05...	--	--	--	--	--	--	--	--	--	--	--
JUL 16...	90	1	<100	46	<10	30	<1	<1	7	<1	<1
AUG 28...	60	<1	<100	50	<10	40	<1	<1	7	<1	<1
SEP 03...	--	--	--	--	--	--	--	--	--	--	--
DATE	COPPER, TOTAL RECOV- ERABLE	COPPER, (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE SOLVED	IRON, (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE SOLVED	LEAD, (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE SOLVED	LITHIUM (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE SOLVED	MANGA- NESE, TOTAL RECOV- ERABLE SOLVED	MERCURY TOTAL RECOV- ERABLE SOLVED
	OCT 25...	--	--	--	160	--	--	--	--	--	--
NOV 30...	--	--	--	50	--	--	--	--	--	--	--
DEC 05...	--	--	--	50	--	--	--	--	--	--	--
JAN 11...	--	--	--	40	--	--	--	--	--	--	--
FEB 27...	--	--	--	30	--	--	--	--	--	--	--
MAR 27...	--	--	--	20	--	--	--	--	--	--	--
APR 22...	--	--	120	40	--	--	--	120	110	--	--
MAY 21...	--	--	450	25	--	--	--	30	5	--	--
JUN 05...	--	--	310	30	--	--	--	10	2	--	--
JUL 16...	1	1	130	34	<1	<1	10	20	9	<0.1	<0.1
AUG 28...	4	1	160	38	<1	<1	20	80	61	<0.1	<0.1
SEP 03...	--	--	130	30	--	--	--	60	52	--	--

## MUDY CREEK BASIN

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**09041400 MUDDY CREEK BELOW WOLFORD MOUNTAIN RESERVOIR NEAR KREMMING, CO--Continued**

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## MUDDY CREEK BASIN

**09041400 MUDDY CREEK BELOW WOLFORD MOUNTAIN RESERVOIR NEAR KREMMLING, CO--Continued**

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	708	706	707	717	715	716	717	663	707	574	569	571
2	709	705	707	717	715	716	716	679	710	576	572	574
3	709	705	707	718	715	716	1740	708	1080	576	574	575
4	709	705	707	719	713	716	1310	988	1100	574	555	563
5	709	707	708	714	710	713	988	916	948	569	558	561
6	710	708	708	714	712	713	917	876	894	567	556	560
7	710	708	709	714	712	713	876	847	860	566	543	554
8	710	708	709	715	712	714	847	810	834	559	545	551
9	711	708	709	716	712	713	811	799	807	552	541	544
10	710	708	709	716	711	714	799	783	791	543	523	532
11	710	706	709	717	713	715	783	769	777	535	490	513
12	712	708	710	716	712	714	769	757	764	516	491	505
13	711	708	710	717	714	715	757	745	752	626	496	532
14	712	708	710	717	713	715	747	737	741	556	527	541
15	712	709	711	717	714	716	737	730	734	545	520	534
16	712	709	711	718	714	716	730	722	728	548	507	526
17	712	709	711	718	715	716	728	703	720	527	491	508
18	712	707	711	717	711	714	718	706	715	540	459	505
19	713	711	712	712	710	711	711	697	702	496	449	473
20	713	708	711	711	699	704	711	696	704	480	450	468
21	713	709	712	700	698	699	698	666	679	482	464	472
22	715	710	713	701	698	699	692	675	684	482	454	470
23	716	713	714	702	696	700	700	682	690	472	441	456
24	716	712	715	703	701	702	700	661	692	481	449	464
25	716	712	714	702	700	701	---	---	---	464	451	458
MONTH	717	705	711	719	688	710	---	---	---	626	353	507
	JUNE			JULY			AUGUST			SEPTEMBER		
1	381	357	370	460	451	455	393	378	383	492	482	486
2	368	340	356	484	450	461	399	383	391	494	482	488
3	364	341	358	494	360	421	401	384	395	493	484	489
4	371	347	360	360	345	352	413	382	397	508	485	493
5	374	340	359	358	346	352	408	396	403	508	491	497
6	369	340	357	358	346	352	416	400	406	498	487	492
7	365	341	355	355	346	351	422	407	416	489	485	487
8	384	345	360	355	340	346	430	414	419	496	486	490
9	541	335	432	355	343	348	434	416	426	496	489	493
10	455	429	444	351	320	336	431	420	426	500	490	492
11	441	411	430	322	317	320	429	420	426	514	493	501
12	438	411	426	329	322	325	444	428	439	505	498	500
13	458	419	437	335	329	332	444	436	440	505	498	503
14	458	450	454	339	335	337	439	432	436	498	494	496
15	466	451	457	343	339	341	450	437	443	503	496	501
16	480	460	470	353	342	347	445	436	441	501	494	497
17	474	454	466	356	351	353	451	442	447	498	490	493
18	464	448	457	358	355	356	451	445	448	495	489	492
19	458	446	452	361	356	359	458	445	450	495	490	493
20	456	430	448	361	359	360	461	454	458	825	491	531
21	458	428	442	365	360	363	464	456	461	496	493	494
22	462	453	458	369	362	365	463	459	461	503	495	498
23	464	456	461	369	365	367	463	457	460	507	496	500
24	466	457	462	373	368	370	466	458	462	513	506	510
25	469	459	464	378	371	373	470	461	465	512	506	508
26	472	456	467	377	373	375	---	---	---	509	506	508
27	476	456	468	382	373	376	608	466	479	514	508	511
28	478	448	463	389	381	384	483	472	477	516	512	514
29	455	443	449	398	381	387	482	469	476	519	515	517
30	452	438	444	394	377	381	628	474	489	525	519	522
31	---	---	---	381	375	378	489	481	484	---	---	---
MONTH	541	335	428	494	317	365	---	---	---	825	482	500

## 09041400 MUDDY CREEK BELOW WOLFORD MOUNTAIN RESERVOIR NEAR KREMMLING, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	7.9	6.9	7.5	---	---	---	---	---	---
2	---	---	---	7.4	6.6	6.9	---	---	---	---	---	---
3	12.8	11.7	12.1	7.3	6.4	6.7	---	---	---	---	---	---
4	---	---	---	7.2	6.2	6.5	---	---	---	---	---	---
5	11.5	10.9	11.2	7.2	6.1	6.6	---	---	---	---	---	---
6	11.5	10.6	11.0	7.0	6.2	6.5	---	---	---	---	---	---
7	11.5	10.5	10.8	6.4	6.2	6.3	---	---	---	---	---	---
8	11.4	10.3	10.9	7.3	6.1	6.5	---	---	---	---	---	---
9	11.4	10.6	10.9	7.0	5.8	6.3	---	---	---	---	---	---
10	11.3	10.3	10.7	6.5	5.4	5.8	---	---	---	---	---	---
11	---	---	---	6.4	5.3	5.6	---	---	---	---	---	---
12	11.1	10.0	10.4	6.6	5.4	5.9	---	---	---	2.9	1.3	1.8
13	10.7	9.6	10.1	6.4	5.8	6.0	---	---	---	2.9	1.4	1.8
14	10.9	9.7	10.2	---	---	---	---	---	---	2.9	1.3	1.8
15	10.9	9.7	10.2	---	---	---	---	---	---	2.9	1.4	1.9
16	10.6	9.4	9.9	---	---	---	---	---	---	3.5	1.8	2.5
17	10.5	9.3	9.8	---	---	---	---	---	---	4.0	1.4	2.2
18	10.5	9.3	9.8	---	---	---	---	---	---	2.8	1.6	2.0
19	10.1	9.2	9.6	---	---	---	---	---	---	---	---	---
20	10.1	8.8	9.4	---	---	---	---	---	---	---	---	---
21	10.3	9.2	9.6	---	---	---	---	---	---	---	---	---
22	9.7	8.7	9.3	---	---	---	---	---	---	---	---	---
23	9.5	8.6	8.9	---	---	---	---	---	---	---	---	---
24	9.4	8.5	8.8	---	---	---	---	---	---	---	---	---
25	9.3	8.4	8.7	---	---	---	---	---	---	---	---	---
26	9.2	8.4	8.6	---	---	---	---	---	---	---	---	---
27	8.7	8.0	8.3	---	---	---	---	---	---	2.6	1.3	1.9
28	8.6	7.8	8.1	---	---	---	---	---	---	2.7	1.7	2.1
29	8.5	7.7	8.1	---	---	---	---	---	---	2.6	1.7	2.1
30	8.7	7.8	8.1	---	---	---	---	---	---	2.5	1.8	2.1
31	8.5	7.6	7.8	---	---	---	---	---	---	2.7	1.9	2.2
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
1	3.0	1.4	2.1	3.4	1.9	2.4	3.5	2.3	2.7	5.1	4.8	5.0
2	2.6	1.1	1.7	3.8	2.0	2.5	3.8	2.2	2.6	5.2	4.9	5.0
3	2.8	1.4	1.8	3.7	1.7	2.4	4.0	2.3	3.0	5.6	4.8	5.2
4	2.7	1.3	1.9	4.1	2.0	2.7	3.6	3.3	3.4	6.0	5.2	5.5
5	3.3	1.8	2.4	3.5	2.2	2.6	3.5	3.1	3.3	6.3	5.5	5.8
6	3.4	1.9	2.4	3.3	2.1	2.5	3.4	3.1	3.2	6.7	5.4	6.0
7	3.2	1.9	2.4	3.1	1.9	2.4	3.3	3.0	3.1	6.7	5.9	6.4
8	3.6	2.1	2.5	3.6	1.9	2.5	3.3	2.9	3.1	6.7	6.2	6.4
9	3.3	1.7	2.3	3.6	1.9	2.5	3.3	2.9	3.0	7.1	6.5	6.9
10	3.4	1.7	2.2	3.6	1.9	2.5	3.1	2.9	2.9	7.6	7.0	7.3
11	3.1	1.5	2.0	3.8	1.9	2.5	2.9	2.8	2.8	8.3	7.0	7.7
12	3.0	1.4	2.0	3.8	2.1	2.6	3.0	2.7	2.8	8.5	7.6	8.0
13	3.0	1.5	2.0	3.7	2.2	2.6	2.7	2.6	2.7	8.0	6.8	7.5
14	3.3	1.5	2.2	3.9	2.1	2.6	2.8	2.6	2.7	7.2	6.6	7.0
15	3.4	1.6	2.2	3.8	2.0	2.7	2.9	2.5	2.7	7.3	6.8	7.1
16	3.3	1.5	2.2	3.6	2.2	2.7	2.9	2.6	2.7	7.5	6.8	7.2
17	3.2	1.6	2.2	3.4	2.0	2.5	2.9	2.5	2.6	7.7	7.1	7.5
18	3.3	2.0	2.5	3.4	1.8	2.4	3.1	2.5	2.8	8.4	6.9	7.5
19	3.4	2.1	2.5	3.2	2.0	2.4	3.0	2.8	2.8	8.5	7.8	8.3
20	2.9	2.1	2.4	3.2	2.0	2.4	3.0	2.8	2.9	8.6	8.0	8.3
21	3.2	2.2	2.6	3.3	2.1	2.5	2.9	2.7	2.8	8.3	8.1	8.2
22	3.4	1.5	2.4	3.4	2.2	2.6	3.0	2.8	2.9	8.4	8.0	8.2
23	3.5	1.5	2.3	3.4	2.3	2.6	3.2	2.8	2.9	8.6	8.2	8.4
24	3.5	1.6	2.2	2.8	1.9	2.3	3.2	2.8	3.0	8.6	8.1	8.4
25	3.5	1.5	2.3	3.2	2.0	2.4	---	---	---	8.7	8.4	8.5
26	3.4	1.7	2.2	3.2	2.0	2.5	4.5	3.7	4.1	8.7	8.4	8.5
27	3.0	1.8	2.2	3.3	2.1	2.6	4.3	4.0	4.2	8.7	8.5	8.6
28	3.3	1.5	2.1	3.5	2.2	2.7	4.4	4.1	4.2	8.6	8.3	8.5
29	3.2	1.5	2.1	3.5	2.3	2.7	4.8	4.2	4.4	8.8	8.3	8.5
30	---	---	---	3.4	2.2	2.6	5.0	4.7	4.8	8.9	8.1	8.4
31	---	---	---	3.4	2.4	2.7	---	---	---	10.1	8.1	9.2
MONTH	3.6	1.1	2.2	4.1	1.7	2.5	---	---	---	10.1	4.8	7.4

MUDDY CREEK BASIN

**09041400 MUDDY CREEK BELOW WOLFORD MOUNTAIN RESERVOIR NEAR KREMLING, CO--Continued**

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	10.1	9.4	9.8	10.3	9.2	9.7	17.6	11.3	15.2	14.5	13.2	13.8
2	9.9	9.1	9.5	10.4	9.3	9.8	12.0	10.8	11.4	14.3	13.1	13.7
3	9.9	9.0	9.5	11.7	9.3	10.4	11.9	10.8	11.2	14.5	14.0	14.2
4	10.1	9.1	9.5	12.1	10.7	11.3	13.0	10.8	11.8	14.9	12.6	13.7
5	10.0	9.2	9.5	12.2	11.1	11.6	13.0	10.8	11.5	15.0	13.1	14.3
6	9.8	9.1	9.5	12.3	10.9	11.3	13.0	11.3	11.9	15.3	13.4	14.4
7	9.7	9.0	9.4	12.1	10.8	11.5	12.6	10.7	11.4	15.0	14.4	14.6
8	9.8	9.1	9.5	12.4	10.7	11.4	12.3	11.1	11.7	14.8	13.6	14.1
9	9.7	8.6	9.1	11.9	10.9	11.3	12.3	11.2	11.8	14.8	14.0	14.5
10	9.0	8.6	8.8	15.9	10.7	13.1	12.9	11.2	11.9	15.6	13.8	14.3
11	9.1	8.7	8.9	17.1	14.1	15.4	12.4	11.1	11.9	15.0	13.8	14.4
12	9.1	8.8	9.0	16.4	14.6	15.5	12.5	11.5	12.0	15.1	13.8	14.4
13	9.6	8.9	9.1	16.6	14.5	15.6	12.4	11.7	12.1	14.9	13.7	14.4
14	9.6	8.7	9.0	15.9	15.2	15.6	13.4	11.5	12.1	14.9	13.9	14.4
15	9.1	8.7	8.9	15.9	13.8	14.9	13.4	12.0	12.6	15.0	13.6	14.3
16	9.6	8.8	9.0	16.2	14.0	15.5	12.9	11.4	12.3	14.7	13.7	14.4
17	9.6	8.8	9.1	17.3	15.0	16.0	12.9	12.0	12.6	14.8	13.7	14.3
18	9.6	8.8	9.1	17.1	14.4	15.9	13.5	11.9	12.6	14.5	13.7	14.1
19	9.7	8.9	9.2	16.8	14.3	15.7	13.8	11.8	12.7	14.4	13.4	13.8
20	9.7	8.9	9.2	16.4	15.2	15.7	13.3	11.8	12.7	14.0	13.1	13.7
21	10.0	9.2	9.5	17.1	15.0	16.1	13.1	11.9	12.8	14.1	13.5	13.7
22	10.3	9.0	9.4	17.1	14.7	16.0	13.4	12.0	12.7	14.0	12.8	13.5
23	10.0	9.0	9.4	16.6	14.7	15.8	13.4	12.6	13.1	13.8	13.3	13.5
24	10.2	8.9	9.4	16.7	14.9	15.9	13.5	12.7	13.2	14.0	13.0	13.3
25	10.2	9.0	9.5	16.6	14.8	15.6	13.4	12.7	13.1	13.4	12.8	13.1
26	10.4	9.1	9.6	17.7	15.1	16.4	---	---	---	12.9	12.0	12.5
27	10.2	9.4	9.6	16.8	14.8	15.6	14.6	12.2	13.6	12.7	11.7	12.1
28	10.1	9.3	9.5	17.0	15.1	16.0	14.4	12.2	13.6	13.0	12.0	12.4
29	10.1	9.3	9.6	17.0	15.0	15.7	14.7	13.5	14.1	13.0	11.8	12.3
30	10.2	9.3	9.7	18.0	15.6	16.5	14.3	12.7	13.6	13.0	11.6	12.2
31	---	---	---	17.5	15.5	16.5	14.2	13.3	13.8	---	---	---
MONTH	10.4	8.6	9.3	18.0	9.2	14.3	---	---	---	15.6	11.6	13.7

OXYGEN, DISSOLVED (MG/L), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## 09041400 MUDDY CREEK BELOW WOLFORD MOUNTAIN RESERVOIR NEAR KREMMLING, CO--Continued

OXYGEN, DISSOLVED (MG/L), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	9.3	9.0	9.1	---	---	---	7.5	6.6	6.8	10.2	10.0	10.1
2	9.3	8.8	9.0	---	---	---	7.9	6.6	7.2	10.1	9.5	9.8
3	9.2	8.9	9.0	---	---	---	8.4	7.8	8.0	9.7	9.4	9.5
4	9.2	8.8	9.0	---	---	---	8.4	8.1	8.2	9.6	9.4	9.5
5	9.1	8.7	8.9	---	---	---	8.5	8.4	8.4	9.8	9.4	9.6
6	9.0	8.6	8.8	---	---	---	8.5	8.4	8.5	9.8	9.5	9.7
7	9.0	8.6	8.8	---	---	---	8.6	8.4	8.5	9.7	9.4	9.6
8	9.0	8.6	8.7	---	---	---	8.9	8.5	8.7	9.7	9.5	9.6
9	8.9	8.5	8.7	---	---	---	8.9	8.7	8.9	9.6	9.0	9.4
10	8.9	8.5	8.7	---	---	---	9.0	8.8	8.9	9.6	9.0	9.3
11	8.9	8.5	8.7	---	---	---	9.0	8.8	8.9	9.6	9.4	9.5
12	8.8	8.4	8.6	---	---	---	9.1	9.0	9.0	9.5	9.3	9.4
13	8.7	8.3	8.5	---	---	---	9.2	9.0	9.1	9.6	9.3	9.5
14	8.7	8.3	8.5	---	---	---	9.7	9.2	9.5	9.7	9.5	9.6
15	8.7	8.3	8.5	---	---	---	9.8	9.5	9.6	9.6	9.5	9.5
16	8.6	8.3	8.4	---	---	---	9.7	9.5	9.6	9.6	9.4	9.5
17	8.6	8.2	8.4	---	---	---	---	---	---	9.6	9.4	9.5
18	8.6	8.2	8.3	---	---	---	---	---	---	9.6	9.3	9.5
19	8.4	8.0	8.2	---	---	---	10.8	10.6	10.7	9.4	9.2	9.3
20	8.4	8.0	8.1	---	---	---	10.7	10.6	10.7	9.4	9.3	9.3
21	8.4	7.9	8.1	7.2	6.8	7.0	10.9	10.7	10.8	9.4	9.2	9.3
22	8.5	7.9	8.2	7.2	6.7	6.9	10.9	10.2	10.7	9.4	9.2	9.3
23	8.3	7.8	8.0	7.3	6.8	7.0	10.8	10.6	10.8	9.2	8.9	9.0
24	8.2	7.8	7.9	7.3	6.7	7.0	10.8	10.4	10.6	9.1	8.9	9.0
25	8.2	7.6	7.8	7.4	6.8	7.1	---	---	---	9.0	8.9	9.0
26	8.1	7.6	7.7	7.3	6.8	7.0	10.5	9.3	10.0	9.0	8.9	8.9
27	---	---	---	7.4	6.8	7.0	10.4	10.2	10.3	9.0	8.8	8.9
28	---	---	---	7.3	6.7	6.9	10.4	10.3	10.4	9.1	8.9	9.0
29	---	---	---	7.3	6.7	6.9	10.4	10.2	10.3	9.1	8.4	8.9
30	---	---	---	7.4	6.7	7.0	10.2	10.1	10.2	8.7	8.4	8.5
31	---	---	---	7.5	6.7	7.0	---	---	---	8.7	8.1	8.4
MONTH	---	---	---	---	---	---	---	---	---	10.2	8.1	9.3
	JUNE			JULY			AUGUST			SEPTEMBER		
1	8.6	8.1	8.4	8.4	6.9	7.5	6.0	5.0	5.4	8.3	7.7	8.0
2	8.7	8.2	8.5	8.4	6.6	7.5	6.9	6.0	6.4	8.4	7.8	8.0
3	8.7	8.2	8.5	7.9	6.4	7.0	6.5	6.0	6.3	8.4	7.8	8.0
4	8.9	8.3	8.5	8.1	6.4	7.0	6.5	5.8	6.1	8.4	7.5	8.0
5	8.9	8.4	8.6	8.3	6.4	7.2	6.6	5.7	6.3	8.4	7.4	7.7
6	8.9	8.4	8.7	8.1	6.6	7.2	6.7	5.9	6.3	8.4	7.4	7.7
7	8.9	8.6	8.8	8.4	6.6	7.4	6.8	6.0	6.5	8.4	7.5	7.8
8	9.0	8.7	8.9	8.3	6.8	7.4	6.9	6.3	6.6	8.5	7.5	7.9
9	9.1	8.8	9.0	8.4	6.8	7.4	7.3	6.4	6.8	8.5	7.4	7.8
10	9.2	9.0	9.1	8.4	6.0	7.2	7.2	6.6	6.9	9.2	7.4	7.9
11	9.2	9.0	9.1	7.8	6.0	6.8	7.0	6.7	6.9	9.0	7.2	7.8
12	9.1	8.8	9.0	7.4	5.8	6.5	7.2	6.9	7.1	8.5	7.2	7.7
13	9.0	8.2	8.7	7.2	5.8	6.4	7.4	7.0	7.2	8.5	7.4	7.7
14	8.7	8.1	8.4	7.2	6.0	6.5	8.0	7.1	7.5	8.6	7.4	7.8
15	8.6	8.2	8.3	7.1	6.1	6.6	8.0	7.3	7.7	8.6	7.7	8.0
16	8.8	8.1	8.4	7.4	6.3	6.8	8.2	7.4	7.8	8.7	7.6	8.0
17	8.7	8.0	8.3	7.9	6.4	7.1	8.1	7.8	7.9	9.0	7.7	8.2
18	8.7	7.9	8.3	7.4	6.4	6.9	8.0	7.7	7.9	8.9	7.2	8.0
19	8.8	7.8	8.2	7.4	6.4	6.9	8.1	7.4	7.8	8.5	7.4	7.8
20	8.6	7.8	8.1	7.5	6.5	7.0	7.8	7.2	7.5	8.7	7.4	7.8
21	8.6	7.3	7.9	7.4	6.4	6.9	7.8	7.2	7.4	8.8	7.6	8.0
22	8.4	7.2	7.7	7.4	6.3	6.9	8.0	7.2	7.6	8.8	7.7	8.1
23	8.5	7.1	7.7	7.2	6.3	6.7	7.9	7.5	7.7	9.0	6.9	8.0
24	8.6	7.1	7.7	6.9	6.1	6.5	7.9	7.4	7.6	9.1	7.0	7.6
25	8.6	7.0	7.6	6.9	6.0	6.5	7.9	7.5	7.7	8.8	7.0	7.7
26	8.6	6.9	7.6	6.8	5.9	6.3	---	---	---	9.3	7.3	8.0
27	8.6	6.9	7.4	6.7	5.9	6.3	7.9	7.2	7.5	9.4	7.0	8.0
28	8.3	6.8	7.5	6.5	5.7	6.0	8.3	7.3	7.8	9.1	7.0	7.8
29	8.5	7.1	7.7	6.5	5.7	6.0	8.4	7.8	8.1	9.0	7.1	7.7
30	8.4	7.0	7.6	6.5	5.2	5.8	8.8	7.9	8.1	8.9	7.1	7.7
31	---	---	---	5.7	4.9	5.4	8.3	7.8	8.0	---	---	---
MONTH	9.2	6.8	8.3	8.4	4.9	6.8	---	---	---	9.4	6.9	7.9

## MUDDY CREEK BASIN

**09041500 MUDDY CREEK AT KREMMLING, CO****WATER-QUALITY RECORDS**

PERIOD OF RECORD.--March 1985 to September 1995 (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1986 to September 1987, April 1990 to September 1995 (discontinued).

WATER TEMPERATURE: April 1986 to September 1987, April 1990 to September 1995 (discontinued).

INSTRUMENTATION.--Water-quality monitor from April 1986 to September 1987, April 1990 to September 1995.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 2,340 microsiemens, Sept. 17, 1993; minimum, 177 microsiemens, May 15, 1991.

WATER TEMPERATURE: Maximum, 25.9°C, July 1-2, 1990; minimum, 0.0°C, on many days during winter.

REMARKS.--Outstanding sediment data from 1995 publication.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
APR 19...	1511	53	64	9.2
JUL 11...	1652	28	16	1.2
AUG 15...	2330	78	32	6.7

**09041900 MONTE CRISTO DIVERSION NEAR HOOSIER PASS, CO**

LOCATION.--Lat 39°22'51", long 106°04'15", in NE<sup>1/4</sup>SE<sup>1/4</sup> sec.2, T.8 S., R.78W., Summit County, Hydrologic Unit 14010002, on left bank at entrance to Hoosier Pass tunnel, 1,800 ft downstream from diversion point, 1.4 mi northwest of Hoosier Pass, and 7 mi southwest of Breckenridge.

PERIOD OF RECORD.--October 1957 to current year (seasonal record).

GAGE.--Water-stage recorder with satellite telemetry, and Parshall flume. Elevation of gage is 10,986 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. This is a transmountain diversion from Monte Cristo Creek in Blue River basin through Hoosier Pass tunnel to South Platte River basin from which it is again diverted to South Catamount Creek in the Arkansas River basin. Water is for municipal use by city of Colorado Springs. Diversion point is in SW<sup>1/4</sup>NE<sup>1/4</sup> sec.2, T.8 S., R.78 W. The entire flow is regulated by diversion gates.

COOPERATION.--Gage-height record collected in cooperation with city of Colorado Springs.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 73 ft<sup>3</sup>/s, Sept. 29, 1994; no flow for most of each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.00	---	---	---	---	---	e.00	e.00	5.7	8.1	.66	25
2	e.00	---	---	---	---	---	e.00	e.00	6.5	14	.67	25
3	e.00	---	---	---	---	---	e.00	e.00	8.5	28	.69	25
4	e.00	---	---	---	---	---	e.00	e.00	12	28	.68	25
5	e.00	---	---	---	---	---	e.00	e.00	14	32	e.33	24
6	e.00	---	---	---	---	---	e.00	e.00	14	37	e2.9	25
7	e.00	---	---	---	---	---	e.00	e.00	12	28	6.9	24
8	e.00	---	---	---	---	---	e.00	e.00	12	13	7.1	24
9	e.00	---	---	---	---	---	e.00	e.00	13	1.8	6.0	24
10	e.00	---	---	---	---	---	e.00	e.00	13	13	5.4	24
11	e.00	---	---	---	---	---	e.00	e.00	11	26	5.9	24
12	e.00	---	---	---	---	---	e.00	e.00	10	23	6.6	24
13	e.00	---	---	---	---	---	e.00	e.00	9.5	1.5	4.3	23
14	e.00	---	---	---	---	---	e.00	e.00	8.8	1.2	e.41	23
15	e.00	---	---	---	---	---	e.00	e.00	8.3	1.1	e.00	23
16	e.00	---	---	---	---	---	e.00	e.00	8.2	5.9	e.00	23
17	e.00	---	---	---	---	---	e.00	e.00	8.3	18	e.00	22
18	e.00	---	---	---	---	---	e.00	e.00	7.6	21	e.00	23
19	e.00	---	---	---	---	---	e.00	e.00	7.0	6.4	e.00	22
20	e.00	---	---	---	---	---	e.00	e.00	7.1	1.9	e.00	21
21	e29	---	---	---	---	---	e.00	e.00	9.1	1.5	e.00	21
22	70	---	---	---	---	---	e.00	e.00	11	1.3	e.00	21
23	66	---	---	---	---	---	e.00	e3.5	8.2	1.1	e26	22
24	67	---	---	---	---	---	e.00	5.7	17	9.3	38	21
25	66	---	---	---	---	---	e.00	8.9	40	16	24	21
26	66	---	---	---	---	---	e.00	5.7	47	5.8	26	20
27	61	---	---	---	---	---	e.00	3.8	37	.57	26	19
28	58	---	---	---	---	---	e.00	3.1	4.6	.58	26	19
29	52	---	---	---	---	---	e.00	3.4	3.6	.82	26	19
30	50	---	---	---	---	---	e.00	5.1	12	1.2	26	18
31	53	---	---	---	---	---	---	5.4	--	.67	25	--
TOTAL	638.00	---	---	---	---	---	0.00	44.60	386.0	347.74	291.54	674
MEAN	20.6	---	---	---	---	---	.000	1.44	12.9	11.2	9.40	22.5
MAX	70	---	---	---	---	---	.00	8.9	47	37	38	25
MIN	.00	---	---	---	---	---	.00	.00	3.6	.57	.00	18
AC-FT	1270	---	---	---	---	---	.00	88	766	690	578	1340

e-Estimated.

## BLUE RIVER BASIN

**09044300 BEMROSE-HOOSIER DIVERSION NEAR HOOSIER PASS, CO**

LOCATION.--Lat 39°22'50", long 106°04'13", in NE<sup>1/4</sup>SE<sup>1/4</sup> sec.2, T.8 S., R.78 W., Summit County, Hydrologic Unit 14010002, on right bank at entrance to Hoosier Pass tunnel, 1.4 mi northwest of Hoosier Pass, 1.6 mi downstream from diversion point on Bemrose Creek, and 7 mi southwest of Breckenridge.

PERIOD OF RECORD.--October 1957 to current year (seasonal record).

GAGE.--Water-stage recorder with satellite telemetry, and Parshall flume. Elevation of gage is 10,986 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. This is a transmountain diversion from Bemrose and Hoosier Creeks in Blue River basin through Hoosier Pass tunnel to South Platte River basin from which it is again diverted to South Catamount Creek in the Arkansas River basin. Water is for municipal use by city of Colorado Springs. Diversion points are in SW<sup>1/4</sup>SW<sup>1/4</sup> sec.6, T.8 S., R.77 W., and in sec.12, T.8 S., R.78 W. The entire flow is regulated by diversion gates.

COOPERATION.--Gage-height record collected in cooperation with City of Colorado Springs.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 44 ft<sup>3</sup>/s, June 21, 1965; no flow for most of each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	---	---	---	---	---	e.00	e.00	8.5	6.0	e.00	.92
2	2.1	---	---	---	---	---	e.00	e.00	9.8	9.9	e.00	.83
3	2.0	---	---	---	---	---	e.00	e.00	13	9.5	e.00	.57
4	2.0	---	---	---	---	---	e.00	e.00	17	9.1	e.00	e.51
5	e.96	---	---	---	---	---	e.00	e.00	23	8.9	e1.3	e.96
6	e.00	---	---	---	---	---	e.00	e.00	24	8.6	2.4	1.2
7	e.00	---	---	---	---	---	e.00	e.00	24	7.7	2.4	e.98
8	e.00	---	---	---	---	---	e.00	e.00	24	7.9	2.4	e.75
9	e.00	---	---	---	---	---	e.00	e.00	25	7.4	2.2	e.42
10	e.00	---	---	---	---	---	e.00	e.00	24	7.1	2.0	e.14
11	e.00	---	---	---	---	---	e.00	e.00	23	6.7	2.0	1.3
12	e.00	---	---	---	---	---	e.00	e.00	22	6.4	1.9	1.1
13	e.00	---	---	---	---	---	e.00	e.00	21	6.1	1.4	1.1
14	e.00	---	---	---	---	---	e.00	e.00	20	5.7	1.4	1.2
15	e.00	---	---	---	---	---	e.00	e.00	21	5.4	1.3	1.2
16	e.00	---	---	---	---	---	e.00	e.00	21	5.1	1.3	1.1
17	e.00	---	---	---	---	---	e.00	e.00	21	4.9	1.3	e.98
18	e.00	---	---	---	---	---	e.00	e.00	20	4.8	1.2	e.84
19	e.00	---	---	---	---	---	e.00	e.00	19	4.5	1.3	e.80
20	e.00	---	---	---	---	---	e.00	e.00	19	4.3	1.3	1.1
21	e.00	---	---	---	---	---	e.00	e.00	19	4.0	1.3	1.2
22	e.00	---	---	---	---	---	e.00	e.00	20	3.7	1.3	1.2
23	e.00	---	---	---	---	---	e.00	e6.3	18	3.6	1.3	1.3
24	e.00	---	---	---	---	---	e.00	10	16	3.5	1.2	1.4
25	e.00	---	---	---	---	---	e.00	12	15	3.3	1.2	e.70
26	e.00	---	---	---	---	---	e.00	9.4	14	e1.3	1.2	e.00
27	e.00	---	---	---	---	---	e.00	7.6	13	e.00	1.3	e.00
28	e.00	---	---	---	---	---	e.00	6.8	7.5	e1.6	1.1	e.00
29	e.00	---	---	---	---	---	e.00	7.6	1.6	e3.0	e1.0	e.00
30	e.00	---	---	---	---	---	e.00	8.5	1.5	e1.5	e.28	e.00
31	e.00	---	---	---	---	---	---	8.1	---	e1.4	e.09	---
TOTAL	9.26	---	---	---	---	---	0.00	76.30	524.9	162.90	38.37	23.80
MEAN	.30	---	---	---	---	---	.000	2.46	17.5	5.25	1.24	.79
MAX	2.2	---	---	---	---	---	.00	12	25	9.9	2.4	1.4
MIN	.00	---	---	---	---	---	.00	.00	1.5	.00	.00	.00
AC-FT	18	---	---	---	---	---	.00	151	1040	323	76	47

e-Estimated.

**09044800 MCCULLOUGH-SPRUCE-CRYSTAL DIVERSION NEAR HOOSIER PASS, CO**

LOCATION.--Lat 39°22'51", long 106°04'14", in NE<sup>1/4</sup>SE<sup>1/4</sup> sec.2, T.8 S., R.78 W., Summit County, Hydrologic Unit 14010002, on left bank at entrance to Hoosier Pass tunnel, 1.4 mi northwest of Hoosier Pass, 1.6 mi downstream from diversion point on McCullough Gulch, and 7 mi southwest of Breckenridge.

PERIOD OF RECORD.--October 1957 to current year (seasonal record). Prior to October 1961, Published as McCullough diversion near Hoosier Pass.

GAGE.--Water-stage recorder with satellite telemetry, and Parshall flume. Elevation of gage is 10,986 ft, above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. This is a transmountain diversion from McCullough Gulch and Spruce and Crystal Creeks in Blue River basin through Hoosier Pass tunnel to South Platte River basin from which it is again diverted to South Catamount Creek in the Arkansas River basin. Water is for municipal use by city of Colorado Springs. Diversion points are in secs.14, 23, and 26, T.7 S., R.78 W. The entire flow is regulated by diversion gates.

COOPERATION.--Gage-height record collected in cooperation with City of Colorado Springs.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 132 ft<sup>3</sup>/s, June 22, 1996; no flow for most of each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.00	---	---	---	---	---	e.00	e.00	20	e1.4	22	e.00
2	e.00	---	---	---	---	---	e.00	e.00	23	e.69	21	e.00
3	e.00	---	---	---	---	---	e.00	e.00	33	e.87	22	e.00
4	e.00	---	---	---	---	---	e.00	e.00	49	e.77	21	e.00
5	e.00	---	---	---	---	---	e.00	e.00	75	e2.2	17	e.00
6	e.00	---	---	---	---	---	e.00	e.00	90	e3.3	14	e.00
7	e.00	---	---	---	---	---	e.00	e.00	80	e2.2	14	e.00
8	e.00	---	---	---	---	---	e.00	e.00	85	e.90	12	e.00
9	e.00	---	---	---	---	---	e.00	e.00	97	e.00	11	e.00
10	e.00	---	---	---	---	---	e.00	e.00	98	e.74	9.4	e.00
11	e.00	---	---	---	---	---	e.00	e.00	95	e.69	9.2	e.00
12	e.00	---	---	---	---	---	e.00	e.00	100	e.25	10	e.00
13	e.00	---	---	---	---	---	e.00	e.00	94	e.00	e7.9	e.00
14	e.00	---	---	---	---	---	e.00	e.00	86	e.07	e.00	e.00
15	e.00	---	---	---	---	---	e.00	e.00	73	e.00	e.00	e.00
16	e.00	---	---	---	---	---	e.00	e.00	73	e.00	e.00	e.00
17	e.00	---	---	---	---	---	e.00	e.00	85	e.32	e.00	e.00
18	e.00	---	---	---	---	---	e.00	e.00	89	e.13	e.00	e.00
19	e.00	---	---	---	---	---	e.00	e.00	88	e.00	e.00	e.00
20	e.00	---	---	---	---	---	e.00	e.00	94	e.00	e.00	e.00
21	e.00	---	---	---	---	---	e.00	e.00	122	e.00	e.00	e.00
22	e.00	---	---	---	---	---	e.00	e.00	132	e.00	e.00	e.00
23	e.00	---	---	---	---	---	e.00	e7.1	95	e.00	e.00	e.00
24	e.00	---	---	---	---	---	e.00	15	71	e13	e.00	e.00
25	e.00	---	---	---	---	---	e.00	16	53	25	e.00	e.00
26	e.00	---	---	---	---	---	e.00	15	56	22	e.00	e.00
27	e.00	---	---	---	---	---	e.00	11	48	23	e.00	e.00
28	e.00	---	---	---	---	---	e.00	9.7	12	23	e.00	e.00
29	e.00	---	---	---	---	---	e.00	10	3.0	26	e.00	e.00
30	e.00	---	---	---	---	---	e.00	15	e2.3	32	e.00	e.00
31	e.00	---	---	---	---	---	---	18	---	26	e.00	---
TOTAL	0.00	---	---	---	---	---	0.00	116.80	2121.3	204.53	190.50	0.00
MEAN	.000	---	---	---	---	---	.000	3.77	70.7	6.60	6.15	.000
MAX	.00	---	---	---	---	---	.00	18	132	32	22	.00
MIN	.00	---	---	---	---	---	.00	.00	2.3	.00	.00	.00
AC-FT	.00	---	---	---	---	---	.00	232	4210	406	378	.00

e-Estimated.

## BLUE RIVER BASIN

## 09046490 BLUE RIVER AT BLUE RIVER, CO

LOCATION.--Lat 39°27'21", long 106°01'52", in NE<sup>1/4</sup>SE<sup>1/4</sup> sec.7, T.7 S., R.77 W., Summit County, Hydrologic Unit 14010002 on left bank, 350 ft downstream from spillway of Goose Pasture Tarn Dam and 2.0 mi southeast of Breckenridge.

DRAINAGE AREA.--42.4 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1983 to current year.

REVISED RECORDS.--WDR CO-95-2: Drainage area.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 9,835 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Transmountain diversions upstream from station by Boreas Pass ditch and Hoosier Pass tunnel. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	16	12	7.1	7.2	5.8	6.0	14	118	e110	48	22
2	27	15	11	6.4	e7.2	5.6	6.5	16	117	e108	45	21
3	25	13	11	6.6	e7.4	5.3	7.3	18	125	e100	46	20
4	27	13	11	7.4	7.7	e5.4	7.2	24	142	e98	47	20
5	27	12	12	7.8	8.2	e5.3	7.5	35	169	e96	42	20
6	24	12	12	6.5	7.1	e5.3	6.7	48	185	e96	36	21
7	25	14	11	6.5	7.3	e5.2	7.0	55	181	e94	e25	24
8	25	13	11	6.7	7.1	5.2	7.6	66	178	e91	22	21
9	23	13	10	6.5	6.5	e5.2	9.8	79	179	e90	22	19
10	23	15	10	7.0	6.6	e5.2	11	80	176	e88	20	17
11	22	12	10	7.2	6.4	5.2	13	82	167	e88	19	17
12	22	14	11	6.9	6.5	5.2	11	105	e161	e88	18	20
13	25	16	11	6.8	6.5	5.2	9.9	123	e160	e86	16	20
14	21	15	11	6.7	6.3	5.3	8.8	140	e150	e84	25	22
15	22	15	9.0	6.7	6.2	5.0	8.8	154	e150	e84	30	26
16	21	14	9.2	6.9	5.8	5.1	9.4	183	e149	e84	32	23
17	20	14	8.9	7.4	5.8	e5.0	10	214	e147	e84	31	20
18	19	13	8.5	6.7	6.6	e4.9	11	200	e140	e86	33	19
19	19	13	8.3	7.8	6.0	4.7	11	221	e135	85	37	21
20	17	12	8.0	7.1	6.0	4.9	9.6	230	e130	94	37	21
21	17	12	7.9	6.3	7.4	5.1	9.8	196	e132	86	36	19
22	18	13	7.8	6.6	6.1	5.0	9.2	210	e142	79	36	19
23	16	13	7.2	6.4	6.0	5.4	9.3	216	e130	73	35	22
24	14	11	7.0	6.0	5.6	5.6	12	169	e120	65	31	29
25	15	11	6.9	7.3	5.4	5.4	18	227	e112	35	26	27
26	16	13	6.8	5.9	5.9	5.5	16	197	e107	32	25	26
27	16	13	6.4	6.2	5.9	5.2	16	159	e105	40	26	23
28	16	11	6.1	7.6	6.3	5.2	15	140	e110	45	30	22
29	16	11	6.0	6.4	6.0	5.3	13	127	e115	50	29	22
30	16	12	6.0	7.1	--	5.9	12	123	e115	56	26	21
31	16	---	7.6	7.6	--	5.7	--	119	--	49	24	--
TOTAL	639	394	281.6	212.1	189.0	163.3	309.4	3970	4247	2444	955	644
MEAN	20.6	13.1	9.08	6.84	6.52	5.27	10.3	128	142	78.8	30.8	21.5
MAX	29	16	12	7.8	8.2	5.9	18	230	185	110	48	29
MIN	14	11	6.0	5.9	5.4	4.7	6.0	14	105	32	16	17
AC-FT	1270	781	559	421	375	324	614	7870	8420	4850	1890	1280

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1996, BY WATER YEAR (WY)

MEAN	19.1	13.6	10.1	7.42	5.78	5.33	12.1	62.2	121	88.2	44.4	26.3
MAX	32.2	26.5	18.9	14.3	8.11	7.96	21.9	128	276	327	120	44.3
(WY)	1985	1985	1985	1985	1985	1985	1989	1996	1995	1995	1995	1984
MIN	13.5	8.62	6.96	4.67	4.12	3.68	5.53	26.0	63.1	23.0	18.0	14.2
(WY)	1992	1992	1995	1995	1991	1993	1993	1995	1992	1991	1986	1986

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1984 - 1996

ANNUAL TOTAL	26035.8	14448.4
ANNUAL MEAN	71.3	39.5
HIGHEST ANNUAL MEAN		34.7
LOWEST ANNUAL MEAN		70.4
HIGHEST DAILY MEAN	578	Jul 12
LOWEST DAILY MEAN	a3.9	Jan 9
ANNUAL SEVEN-DAY MINIMUM	4.1	Jan 7
INSTANTANEOUS PEAK FLOW		20.5
INSTANTANEOUS PEAK STAGE		20.5
ANNUAL RUNOFF (AC-FT)	51640	230 May 20
10 PERCENT EXCEEDS	260	261 May 19
50 PERCENT EXCEEDS	13	2.24 May 19
90 PERCENT EXCEEDS	4.4	681 Jun 18
		Jun 18 1995
		3.23 Jun 18 1995
		25170
		86
		15
		5.2

e-Estimated.

a-Also occurred Jan 10, Feb 4-5, 17, and Mar 14.

b-Also occurred Mar 13, 1993, and Apr 3, 1994.

**09046530 FRENCH GULCH AT BRECKENRIDGE, CO**

LOCATION.--Lat. 39°29'35", long. 106°02'39", in SE<sup>1/4</sup>SW<sup>1/4</sup>, sec. 30, T.6 S., R.77 W., Summit County, Hydrologic Unit 14010002, on left bank, 0.1 mi. south of Summit Co. Rd. 450, 0.1 mi upstream from bridge on Hwy. 9, in Breckenridge.

DRAINAGE AREA.--10.9 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--October 1995 to September 1996.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 9,510 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are good to poor. No diversion or regulation upstream from gage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	3.9	3.1	e1.8	e2.1	e1.9	e2.5	5.3	39	34	11	6.1
2	6.2	3.5	3.0	e1.8	e2.1	e1.9	e2.7	5.9	39	32	11	6.0
3	5.9	2.7	2.9	e1.9	e2.2	e1.9	e2.8	6.7	42	30	11	5.8
4	6.2	2.5	2.9	e1.7	e2.1	e1.9	e2.7	7.7	48	29	11	5.6
5	6.1	2.6	3.0	e1.7	e2.1	e1.8	e2.7	9.7	59	29	10	5.5
6	5.8	2.9	e3.0	e1.9	e2.2	e1.9	e2.8	13	73	29	9.6	5.9
7	6.0	3.4	e3.1	e2.0	e2.2	e1.8	e2.8	15	73	28	9.2	6.0
8	6.0	3.6	e3.2	e2.0	e2.2	e1.8	e3.3	16	74	26	9.1	5.5
9	5.9	3.5	e3.2	e2.0	e2.2	e1.8	e3.9	19	79	25	8.9	5.3
10	5.8	3.5	e3.3	e2.0	e2.2	e1.8	e4.2	21	80	24	8.5	5.1
11	5.7	2.9	e3.2	e2.0	e2.2	e1.8	e4.5	23	76	22	8.2	5.0
12	5.9	3.3	e3.5	e2.0	e2.2	e1.8	e4.0	27	76	21	7.8	5.4
13	6.1	3.6	e3.6	e2.0	e2.2	e1.8	e3.9	31	70	20	7.6	6.0
14	5.6	3.7	e3.1	e2.0	e2.1	e1.9	e3.5	36	68	19	7.5	6.0
15	5.6	3.7	e2.8	e2.0	e2.1	e2.0	e3.4	40	69	18	7.5	6.6
16	5.5	3.4	e2.7	e2.0	e2.1	e1.9	e3.8	49	69	17	7.6	6.4
17	5.3	3.4	e2.8	e2.0	e2.2	e1.9	e4.0	59	65	17	7.3	6.1
18	5.1	3.2	e3.1	e2.0	e1.8	e1.8	3.9	58	63	17	7.2	6.1
19	5.0	3.2	e3.0	e2.0	e1.8	e1.8	3.6	62	59	16	7.3	6.7
20	4.6	3.1	e2.9	e2.0	e1.9	e1.9	3.6	67	57	15	7.8	6.6
21	4.6	3.1	e2.7	e2.0	e1.9	e2.0	3.7	61	58	15	7.8	6.4
22	4.5	3.1	e2.5	e1.9	e1.9	e2.1	3.7	59	62	14	7.3	6.6
23	3.9	3.0	e2.4	e1.8	e1.9	e2.1	4.0	61	55	14	7.3	7.5
24	3.6	2.6	e2.5	e1.8	e1.9	e2.2	5.0	57	50	13	8.2	8.2
25	3.9	2.8	e2.3	e1.8	e1.9	e2.3	5.1	80	45	13	7.3	7.5
26	4.3	2.8	e1.9	e1.8	e1.9	e2.3	4.8	75	42	12	6.8	7.0
27	4.2	2.9	e1.8	e1.8	e1.8	e2.4	5.1	61	42	12	6.8	6.5
28	4.0	2.5	e1.9	e1.9	e1.9	e2.4	4.9	51	40	12	7.0	6.2
29	4.0	2.8	e1.9	e1.9	e1.9	e2.4	4.6	46	38	12	7.0	6.4
30	3.9	3.0	e1.9	e2.0	---	e2.3	4.8	42	36	12	6.5	6.3
31	3.9	---	e1.8	e2.1	---	e2.3	---	40	---	12	6.3	---
TOTAL	159.7	94.2	85.0	59.6	59.2	61.9	114.3	1204.3	1746	609	253.4	186.3
MEAN	5.15	3.14	2.74	1.92	2.04	2.00	3.81	38.8	58.2	19.6	8.17	6.21
MAX	6.6	3.9	3.6	2.1	2.2	2.4	5.1	80	80	34	11	8.2
MIN	3.6	2.5	1.8	1.7	1.8	1.8	2.5	5.3	36	12	6.3	5.0
AC-FT	317	187	169	118	117	123	227	2390	3460	1210	503	370

**SUMMARY STATISTICS****FOR 1996 WATER YEAR**

ANNUAL TOTAL	4632.9
ANNUAL MEAN	12.7
HIGHEST DAILY MEAN	a80
LOWEST DAILY MEAN	e,b1.7
ANNUAL SEVEN-DAY MINIMUM	1.8
INSTANTANEOUS PEAK FLOW	89
INSTANTANEOUS PEAK STAGE	c6.77
ANNUAL RUNOFF (AC-FT)	9190
10 PERCENT EXCEEDS	43
50 PERCENT EXCEEDS	4.4
90 PERCENT EXCEEDS	1.9

e-Estimated.

a-Also occurred Jun 10.

b-Also occurred Jan 5.

c-Maximum gage height, 6.78 ft., May 25, backwater from debris.

## BLUE RIVER BASIN

**09046530 FRENCH GULCH AT BRECKENRIDGE, CO--Continued**  
**(National Water-Quality Assessment Program station)**

**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--October 1995 to September 1996.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	
OCT 23...	1320	3.6	261	7.5	4.0	8.9	110	35	5.6	1.9	0.1	
NOV 21...	1455	3.3	286	7.0	2.5	10.3	120	39	6.1	1.9	0.1	
JAN 19...	1040	2.0	335	7.3	0.5	9.9	150	47	8.0	2.4	0.1	
FEB 22...	1120	2.2	336	7.1	2.0	9.1	150	47	7.9	2.3	0.1	
MAR 21...	1320	2.4	328	7.0	3.0	9.6	140	44	7.5	4.2	0.2	
APR 17...	0825	4.1	359	7.3	1.0	9.9	160	50	8.7	2.5	0.1	
MAY 09...	1015	18	290	7.4	2.5	10.6	120	38	6.1	2.1	0.1	
16...	1350	43	207	7.4	4.0	9.8	82	26	4.1	1.7	0.1	
22...	1450	53	176	7.5	5.0	9.3	75	24	3.7	1.5	0.1	
26...	0820	75	165	7.6	2.0	9.9	62	20	3.0	1.2	0.1	
JUN 21...	0950	59	148	7.5	5.0	9.7	62	20	2.9	1.3	0.1	
25...	1200	48	155	7.4	5.5	9.3	65	21	3.0	1.3	0.1	
JUL 18...	1510	16	194	7.6	8.0	9.2	81	26	3.8	1.6	0.1	
AUG 15...	0930	7.0	240	7.6	8.0	9.5	99	31	5.2	1.9	0.1	
SEP 09...	1320	5.1	258	7.8	8.0	8.8	110	35	5.5	2.0	0.1	
		BICAR- <sup>a</sup> POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- <sup>b</sup> BONATE WATER DIS IT FIELD MG/L AS HCO3	LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS- FIELD MG/L AS SO4	CHLO- RIDE, DIS- FIELD MG/L AS CL	FLUO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS F)	SOLIDs, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L AS SIO2)	SOLIDs, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDs, DIS- SOLVED (TONS PER AC-FT)	SOLIDs, DIS- SOLVED (TONS PER DAY)
OCT 23...	0.9	38	31	84	1.1	0.2	9.4	168	160	0.23	1.63	
NOV 21...	1.0	37	30	100	1.2	<0.1	9.1	187	180	0.25	1.67	
JAN 19...	1.0	33	27	120	1.2	0.1	9.8	218	210	0.30	1.18	
FEB 22...	1.0	32	26	120	1.7	<0.1	9.6	223	209	0.30	1.30	
MAR 21...	1.2	32	27	110	5.2	<0.1	9.1	212	200	0.29	1.36	
APR 17...	1.1	36	29	130	1.7	<0.1	9.9	234	227	0.32	2.60	
MAY 09...	0.8	40	33	100	1.9	<0.1	9.0	193	182	0.26	9.48	
16...	0.7	35	29	59	1.3	<0.1	8.5	137	123	0.19	16.0	
22...	0.7	38	31	49	1.0	<0.1	8.3	128	110	0.17	18.2	
26...	0.7	37	30	47	1.1	<0.1	7.0	120	101	0.16	24.3	
JUN 21...	0.5	32	27	35	0.50	<0.1	7.5	84	86	0.11	13.3	
25...	0.6	34	28	37	0.40	<0.1	7.5	94	90	0.13	12.2	
JUL 18...	0.7	38	32	53	0.70	0.1	8.4	117	116	0.16	5.12	
AUG 15...	0.9	44	36	74	0.90	<0.1	9.2	152	148	0.21	2.86	
SEP 09...	1.0	41	34	81	1.0	<0.1	9.5	164	158	0.22	2.26	

a-Field dissolved bicarbonate, determined by incremental titration method.

b-Field total dissolved alkalinity, determined by incremental titration method.

**09046530 FRENCH GULCH AT BRECKENRIDGE, CO--Continued**  
**(National Water-Quality Assessment Program station)**

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO-GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO-GEN, NO <sub>2</sub> +NO <sub>3</sub> DIS- SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO-GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHORUS DIS. (MG/L AS P)	PHOS- PHORUS DIS. (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT 23...	<0.01	<0.05	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01	0.6	0.1
NOV 21...	<0.01	<0.05	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01	0.6	0.1
JAN 19...	<0.01	0.06	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01	0.6	0.1
FEB 22...	<0.01	0.09	<0.015	<0.2	<0.2	0.01	<0.01	<0.01	0.6	0.1
MAR 21...	<0.01	0.08	0.05	0.4	0.3	0.07	0.02	0.02	1.4	0.8
APR 17...	<0.01	0.14	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01	0.4	0.1
MAY 09...	<0.01	0.19	0.03	<0.2	<0.2	<0.01	<0.01	<0.01	0.7	0.1
16...	<0.01	0.14	0.03	<0.2	<0.2	<0.01	<0.01	<0.01	1.1	0.1
22...	<0.01	0.10	0.02	<0.2	<0.2	<0.01	<0.01	<0.01	1.3	0.1
26...	<0.01	0.06	0.02	<0.2	<0.2	<0.01	<0.01	<0.01	2.1	0.1
JUN 21...	<0.01	0.08	0.02	<0.2	<0.2	<0.01	<0.01	<0.01	1.1	0.1
25...	<0.01	0.07	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01	1.0	0.1
JUL 18...	0.01	0.10	0.05	<0.2	<0.2	<0.01	<0.01	0.02	0.6	0.1
AUG 15...	<0.01	0.06	<0.015	<0.2	<0.2	0.02	<0.01	<0.01	0.5	<0.1
SEP 09...	<0.01	0.07	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01	0.5	<0.1
DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	
OCT 23...	10	<1	<1	24	<1	7	<1	<1	1	
NOV 21...	8	<1	<1	26	<1	8	<1	<1	3	
JAN 19...	10	<1	<1	29	<1	9	<1	<1	3	
FEB 22...	7	<1	<1	30	<1	8	<1	<1	2	
MAR 21...	4	<1	<1	30	<1	7	<1	<1	2	
APR 17...	20	<1	<1	28	<1	11	<1	<1	3	
MAY 09...	20	<1	<1	20	<1	11	<1	<1	6	
16...	20	<1	<1	15	<1	9	90	2	5	
22...	10	<1	<1	13	<1	8	<1	<1	3	
26...	20	<1	<1	13	<1	8	<1	<1	3	
JUN 21...	7	<1	<1	10	<1	6	<1	<1	2	
25...	7	<1	<1	11	<1	6	30	<1	2	
JUL 18...	5	<1	<1	15	<1	6	<1	<1	1	
AUG 15...	5	<1	<1	20	<1	6	<1	<1	1	
SEP 09...	5	<1	<1	23	<1	7	<1	<1	1	

## BLUE RIVER BASIN

**09046530 FRENCH GULCH AT BRECKENRIDGE, CO--Continued**  
**(National Water-Quality Assessment Program station)**

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
OCT 23...	13	7	26	<1	2	<1	<1	3100	<1
NOV 21...	16	7	22	<1	2	<1	<1	3000	<1
JAN 19...	19	8	30	<1	4	<1	<1	3900	<1
FEB 22...	12	7	18	<1	5	<1	<1	3500	<1
MAR 21...	<3	<1	34	<1	4	<1	<1	2900	<1
APR 17...	54	2	82	<1	5	<1	<1	4400	<1
MAY 09...	21	2	170	<1	4	<1	<1	3500	<1
16...	370	2	250	9	85	<1	<1	2700	<1
22...	91	3	280	<1	3	<1	<1	2300	<1
26...	120	4	310	<1	2	<1	<1	2300	<1
JUN 21...	28	2	210	<1	2	<1	<1	1800	<1
25...	27	3	190	3	21	<1	<1	2100	<1
JUL 18...	13	3	43	<1	3	<1	<1	2200	<1
AUG 15...	13	5	9	<1	3	<1	<1	2500	<1
SEP 09...	11	5	10	<1	2	<1	<1	2400	<1

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SAMPLER <sup>d</sup> TYPE (CODE)
NOV 21...	1455	3.3	0	0.0	8010
JAN 19...	1040	2.0	0	0.0	8010
FEB 22...	1120	2.2	0	0.0	8010
MAR 21...	1320	2.4	65	0.42	8010
APR 17...	0825	4.1	1 <sup>c</sup>	0.01	3045
17...	0826	4.1	1	0.01	3045
23...	1230	3.7	1	0.01	--
MAY 01...	1130	5.1	2	0.03	3045
08...	1130	16	2	0.09	3045
09...	1015	18	2 <sup>c</sup>	0.10	3045
09...	1016	18	3	0.15	3045
16...	1345	43	7	0.81	3045
16...	1350	43	8 <sup>c</sup>	0.93	3045
22...	1450	53	2 <sup>c</sup>	0.28	3045
22...	1530	53	2	0.28	3045
26...	0820	75	3 <sup>c</sup>	0.61	3045
26...	0830	75	3	0.61	3045
30...	1150	43	1	0.13	--
JUN 05...	1755	54	3	0.44	3045
07...	1530	67	2	0.29	--
14...	0940	69	2	0.39	--
21...	0950	59	1 <sup>c</sup>	0.14	3045
21...	0955	59	1 <sup>c</sup>	0.16	3045
25...	1200	48	1 <sup>c</sup>	0.10	3045
25...	1210	48	1	0.18	3045
JUL 18...	1455	16	0	0.01	3045
18...	1510	16	1 <sup>c</sup>	0.05	3045
25...	1555	13	1	0.03	3045
AUG 15...	0930	7.0	1 <sup>c</sup>	0.02	3045
15...	0950	7.0	2	0.04	3045
SEP 09...	1320	5.1	0 <sup>c</sup>	0.00	3045
09...	1330	5.1	0	0.00	3045

<sup>c</sup>-Suspended-sediment concentration determined from a subsample split of a composite sample.<sup>d</sup>-Sampler type: code 3045 is a suspended-sediment and water-quality sampler; 8010 is a 3-liter bottle.

## BLUE RIVER BASIN

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## 09046600 BLUE RIVER NEAR DILLON, CO

LOCATION.--Lat 39°34'00", long 106°02'56", in SW<sup>1/4</sup>SE<sup>1/4</sup> sec.31, T.5 S., R.77 W., Summit County, Hydrologic Unit 14010002, on left bank 0.3 mi upstream from Dillon Reservoir and 5.0 mi south of Dillon.

DRAINAGE AREA.--121 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1957 to current year.

REVISED RECORDS.--WSP 2124: Drainage area. WDR CO-95-2: 1994.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 9,020 ft above sea level, from topographic map. Prior to Aug. 6, 1992, gage site 1.4 mi upstream at different datum. Prior to Oct. 20, 1994, gage site 200 ft upstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Transmountain diversions upstream from station by Boreas Pass ditch and Hoosier Pass tunnel (see elsewhere in this report). Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	55	44	e35	e33	e28	32	80	421	419	120	71
2	80	53	44	e35	e33	e28	36	88	401	396	114	69
3	78	49	44	e35	e33	e28	38	106	409	362	113	67
4	76	45	44	e35	e33	e27	39	138	448	347	115	66
5	76	45	45	e35	e33	e27	39	182	515	340	109	64
6	76	45	44	e35	e33	e27	39	240	591	340	103	63
7	75	46	43	e35	e33	e26	40	280	617	334	99	66
8	75	47	42	e35	e33	e25	42	318	621	321	93	69
9	74	47	42	e35	e33	e25	49	368	625	302	90	67
10	72	47	42	e34	e33	e24	60	390	632	288	87	64
11	70	47	e42	e33	e24	69	381	623	271	84	63	
12	69	46	e42	e33	e24	70	431	614	251	80	61	
13	70	46	e42	e33	e23	66	499	579	244	77	63	
14	71	49	e42	e33	e23	59	530	558	240	74	64	
15	68	50	e42	e33	e23	56	565	557	231	76	65	
16	67	49	e41	e33	e23	56	626	561	221	81	69	
17	66	48	e40	e33	e23	60	676	530	208	83	68	
18	64	48	e39	e33	e23	63	668	516	207	81	66	
19	63	47	e38	e33	e23	63	682	500	206	84	64	
20	61	46	e38	e33	e23	60	703	484	205	89	66	
21	59	46	e37	e33	e23	56	624	502	198	91	66	
22	59	46	e37	e33	e29	53	603	527	187	89	66	
23	58	46	e37	e33	e28	54	614	485	179	88	68	
24	54	45	e37	e33	e28	63	579	426	168	87	78	
25	52	45	e37	e33	e28	82	683	414	143	83	88	
26	53	45	e37	e33	e28	92	727	395	125	77	84	
27	54	43	e37	e33	e28	96	612	390	124	75	80	
28	55	43	e37	e33	e28	92	540	412	127	75	74	
29	55	44	e37	e33	e28	83	478	434	130	77	72	
30	54	44	e37	e33	---	24	79	450	424	135	77	72
31	55	---	e36	e33	---	e26	439	---	129	74	---	
TOTAL	2043	1402	1246	1042	918	786	1786	14300	15211	7378	2745	2063
MEAN	65.9	46.7	40.2	33.6	31.7	25.4	59.5	461	507	238	88.5	68.8
MAX	84	55	45	35	33	29	96	727	632	419	120	88
MIN	52	43	36	33	28	22	32	80	390	124	74	61
AC-FT	4050	2780	2470	2070	1820	1560	3540	28360	30170	14630	5440	4090

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1996, BY WATER YEAR (WY)

MEAN	51.7	38.7	31.2	26.2	24.3	23.5	39.9	175	339	205	105	67.7
MAX	101	74.4	54.0	40.3	36.0	32.5	77.7	461	661	644	241	143
(WY)	1985	1985	1984	1984	1983	1983	1985	1996	1995	1995	1984	1983
MIN	30.6	23.8	21.7	17.0	17.2	17.0	23.0	65.1	72.0	73.7	55.1	40.5
(WY)	1978	1978	1978	1995	1992	1995	1964	1981	1963	1966	1977	1962

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1958 - 1996
ANNUAL TOTAL	61095	50920	
ANNUAL MEAN	167	139	a107
HIGHEST ANNUAL MEAN			168
LOWEST ANNUAL MEAN			45.8
HIGHEST DAILY MEAN	1160	Jun 18	b1160
LOWEST DAILY MEAN	c16	Jan 9	d16
ANNUAL SEVEN-DAY MINIMUM	16	Mar 3	16
INSTANTANEOUS PEAK FLOW		776	Mar 3 1995
INSTANTANEOUS PEAK STAGE		6.46	1390
ANNUAL RUNOFF (AC-FT)	121200	101000	Jun 18 1995
10 PERCENT EXCEEDS	575	458	6.91
50 PERCENT EXCEEDS	50	62	a77520
90 PERCENT EXCEEDS	17	29	246
			44
			22

e-Estimated.

a-Adjusted for diversions to Hoosier Pass tunnel.

b-Also occurred Jun 18, 1995.

c-Also occurred Mar 3-21.

d-Also occurred Feb 13-14, 1993, Jan 9, and Mar 3-21, 1995.

## BLUE RIVER BASIN

**09047500 SNAKE RIVER NEAR MONTEZUMA, CO**

**LOCATION.**--Lat 39°36'20", long 105°56'33", in NW<sup>1/4</sup> sec.19, T.5 S., R.76 W. (projected), Summit County, Hydrologic Unit 14010002, on right bank 200 ft downstream from North Fork and 4.5 mi northwest of Montezuma.

**DRAINAGE AREA.**--57.7 mi<sup>2</sup>.

**PERIOD OF RECORD.**--July 1942 to September 1946, October 1951 to current year.

**REVISED RECORDS.**--WSP 2124: Drainage area.

**GAGE.**--Water-stage recorder. Elevation of gage is 9,320 ft above sea level, from topographic map. Prior to Oct. 14, 1943, nonrecording gage at present site and datum.

**REMARKS.**--Records good except for estimated daily discharges, which are poor. Small diversions upstream from station for irrigation and domestic use. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of his report.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	e16	e23	e16	e15	e13	e14	21	208	333	80	38
2	37	e16	e23	e16	e15	e13	e15	23	216	313	78	37
3	36	e16	e23	e16	e15	e13	e16	25	251	296	81	36
4	38	e16	e23	e16	e15	e13	e17	32	297	297	78	35
5	36	e16	e24	e16	e15	e13	e17	44	360	294	73	34
6	36	e16	e23	e16	e15	e13	e17	54	417	282	69	40
7	35	e16	e23	e16	e15	e12	e17	64	439	268	70	39
8	36	e17	e22	e16	e15	e12	e19	79	484	248	68	35
9	35	e18	e22	e15	e15	e12	e22	90	525	227	65	35
10	35	e18	e22	e15	e15	e12	e26	96	614	230	61	35
11	35	e18	e22	e15	e15	e12	e26	107	632	209	56	34
12	36	e18	e22	e15	e15	e12	e26	143	588	196	54	40
13	36	e19	e23	e15	e15	e12	e25	172	578	186	52	44
14	33	e20	e23	e15	e15	e12	e24	197	536	178	52	40
15	34	e20	e23	e15	e15	e12	e24	236	526	169	51	45
16	e32	e20	e22	e15	e15	e12	e24	314	495	163	50	39
17	e27	e21	e21	e15	e15	e12	e25	357	487	157	48	38
18	e23	e22	e20	e15	e15	e12	e27	349	480	154	48	39
19	e20	e23	e20	e15	e15	e11	e27	384	464	145	49	42
20	e17	e24	e20	e15	e15	e12	e25	365	457	138	48	42
21	e17	e24	e20	e15	e15	e12	e23	330	477	130	47	42
22	e18	e24	e20	e15	e14	e12	e23	349	506	121	51	44
23	e18	e24	e20	e15	e14	e12	e23	358	454	114	51	49
24	e16	e24	e20	e15	e14	e12	e24	334	415	108	49	64
25	e15	e24	e20	e15	e14	e12	e24	350	384	106	45	56
26	e15	e23	e20	e15	e14	e12	e26	300	370	101	45	50
27	e16	e22	e20	e15	e14	e12	25	253	386	95	44	45
28	e16	e22	e20	e15	e13	e12	23	231	393	92	45	49
29	e16	e23	e20	e15	e13	e12	26	219	369	94	42	53
30	e16	e23	e19	e15	---	e13	21	220	351	89	40	52
31	e16	---	e17	e15	---	e13	---	211	---	84	39	---
TOTAL	835	603	660	473	425	379	671	6307	13159	5617	1729	1271
MEAN	26.9	20.1	21.3	15.3	14.7	12.2	22.4	203	439	181	55.8	42.4
MAX	39	24	24	16	15	13	27	384	632	333	81	64
MIN	15	16	17	15	13	11	14	21	208	84	39	34
AC-FT	1660	1200	1310	938	843	752	1330	12510	26100	11140	3430	2520

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1996, BY WATER YEAR (WY)

MEAN	27.1	19.5	15.3	11.9	10.6	10.6	18.0	98.2	284	148	65.5	37.9
MAX	66.9	39.5	25.9	18.0	16.0	14.9	35.4	216	465	385	177	90.7
(WY)	1985	1985	1985	1985	1987	1985	1946	1958	1952	1995	1984	1984
MIN	16.1	11.8	9.90	7.03	7.00	7.40	8.34	28.7	101	50.9	24.4	18.0
(WY)	1945	1965	1978	1963	1946	1973	1973	1995	1966	1977	1977	1977

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1943 - 1996
ANNUAL TOTAL	34228.6	32129	
ANNUAL MEAN	93.8	87.8	62.3
HIGHEST ANNUAL MEAN			94.6
LOWEST ANNUAL MEAN			35.1
HIGHEST DAILY MEAN	870	Jun 22	870
LOWEST DAILY MEAN	e9.0	Mar 26	5.0
ANNUAL SEVEN-DAY MINIMUM	9.3	Mar 20	6.0
INSTANTANEOUS PEAK FLOW		739 Jun 10	1250 Jun 10 1952
INSTANTANEOUS PEAK STAGE		3.38 Jun 10	<sup>a</sup> 3.51 Jun 10 1952
ANNUAL RUNOFF (AC-FT)	67890	63730	45120
10 PERCENT EXCEEDS	344	319	176
50 PERCENT EXCEEDS	22	24	22
90 PERCENT EXCEEDS	9.4	14	10

e-Estimated.

a-Maximum gage height, 3.88 ft, Jun 6, 1972.

## 09047700 KEYSTONE GULCH NEAR DILLON, CO

LOCATION.--Lat 39°35'40", long 105°58'19", in NE<sup>1/4</sup>NE<sup>1/4</sup> sec.26, T.5 S., R.77 W., Summit County, Hydrologic Unit 14010002, on right bank 0.7 mi upstream from mouth and 4.7 mi southeast of Dillon.

DRAINAGE AREA.--9.10 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1957 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 9,350 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. No known diversion upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	e3.2	e3.5	e2.9	e2.8	e2.6	e2.6	e5.8	48	24	7.5	4.5
2	4.1	e3.2	e3.5	e2.9	e2.8	e2.6	e2.6	e6.4	50	23	7.3	4.4
3	3.8	e3.3	e3.5	e2.9	e2.8	e2.6	e2.6	e7.4	52	22	7.4	4.3
4	3.9	e3.3	e3.5	e2.9	e2.8	e2.6	e2.7	7.0	53	21	7.2	4.3
5	3.9	e3.3	e3.5	e2.9	e2.8	e2.6	e2.7	9.0	62	20	7.1	4.2
6	4.3	e3.3	e3.5	e2.9	e2.8	e2.6	e2.8	11	74	19	6.7	4.9
7	4.3	e3.4	e3.5	e2.9	e2.8	e2.6	e2.9	12	76	17	6.9	4.6
8	4.1	e3.4	e3.5	e2.9	e2.8	e2.6	e3.1	14	79	17	6.7	4.4
9	3.9	e3.4	e3.5	e2.8	e2.8	e2.6	e3.4	17	77	16	6.4	4.2
10	3.6	e3.4	e3.5	e2.8	e2.8	e2.6	e3.5	17	72	15	6.1	4.1
11	3.6	e3.4	e3.5	e2.8	e2.8	e2.6	e3.6	19	72	14	5.9	4.0
12	3.6	e3.4	e3.5	e2.8	e2.8	e2.6	e3.6	23	65	14	5.7	4.1
13	3.8	e3.4	e3.5	e2.8	e2.8	e2.6	e3.6	24	62	13	5.6	4.3
14	3.5	e3.5	e3.2	e2.8	e2.8	e2.6	e3.6	27	57	13	5.5	4.2
15	3.3	e3.5	e2.9	e2.8	e2.8	e2.6	e3.6	33	71	13	5.5	5.0
16	3.4	e3.6	e2.9	e2.8	e2.8	e2.5	e3.6	42	63	13	5.4	4.4
17	3.2	e3.6	e2.9	e2.8	e2.8	e2.5	e3.6	48	55	13	5.3	4.1
18	3.2	e3.7	e2.9	e2.8	e2.6	e2.4	e3.6	54	52	13	5.3	4.2
19	e3.1	e3.8	e2.9	e2.8	e2.6	e2.6	e3.6	75	48	12	5.4	4.5
20	e3.4	e3.8	e2.9	e2.8	e2.6	e2.6	e3.6	71	46	11	6.1	4.6
21	e3.0	e3.9	e2.9	e2.8	e2.6	e2.6	e3.6	62	47	11	5.6	4.9
22	e3.0	e3.9	e2.9	e2.8	e2.6	e2.6	e3.6	72	47	10	5.5	5.0
23	e3.0	e3.8	e2.9	e2.8	e2.6	e2.5	e3.7	71	41	10	5.6	5.7
24	e3.0	e3.6	e2.9	e2.8	e2.6	e2.5	e4.1	72	37	9.7	5.4	6.6
25	e3.0	e3.6	e2.9	e2.8	e2.6	e2.5	e4.4	104	34	9.5	5.1	5.6
26	e3.0	e3.5	e2.9	e2.8	e2.6	e2.5	e4.4	81	31	9.1	5.0	5.2
27	e3.0	e3.5	e2.9	e2.8	e2.6	e2.5	e4.5	67	30	8.6	5.0	4.8
28	e3.1	e3.5	e2.9	e2.8	e2.6	e2.5	e4.7	58	30	8.5	5.2	5.1
29	e3.2	e3.5	e2.9	e2.8	e2.6	e2.5	e5.0	55	28	8.8	5.3	5.5
30	e3.2	e3.5	e2.9	e2.8	---	e2.5	e5.2	52	26	8.4	4.8	5.2
31	e3.2	---	e2.9	e2.8	---	e2.5	---	49	---	7.8	4.6	---
TOTAL	107.9	105.2	98.0	87.6	78.8	79.3	108.1	1265.6	1585	424.4	182.1	140.9
MEAN	3.48	3.51	3.16	2.83	2.72	2.56	3.60	40.8	52.8	13.7	5.87	4.70
MAX	4.3	3.9	3.5	2.9	2.8	2.6	5.2	104	79	24	7.5	6.6
MIN	3.0	3.2	2.9	2.8	2.6	2.4	2.6	5.8	26	7.8	4.6	4.0
AC-FT	214	209	194	174	156	157	214	2510	3140	842	361	279

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1996, BY WATER YEAR (WY)

MEAN	3.34	2.93	2.51	2.17	2.03	2.05	3.09	12.6	24.8	10.3	5.32	3.79
MAX	6.12	4.33	3.68	2.85	2.80	3.00	6.19	40.8	58.8	31.2	15.5	7.97
(WY)	1985	1985	1966	1971	1991	1986	1986	1996	1995	1995	1984	1984
MIN	2.02	1.77	1.37	1.39	1.40	1.40	1.44	5.49	4.49	2.55	2.19	1.83
(WY)	1982	1964	1964	1961	1973	1973	1981	1981	1963	1963	1977	1977

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1958 - 1996
ANNUAL TOTAL	3897.4	4262.9	
ANNUAL MEAN	10.7	11.6	6.25
HIGHEST ANNUAL MEAN			13.1
LOWEST ANNUAL MEAN			3.10
HIGHEST DAILY MEAN	153	Jun 18	153
LOWEST DAILY MEAN	e,a <sup>2.2</sup>	Jan 30	1.1
ANNUAL SEVEN-DAY MINIMUM	2.2	Jan 30	1.3
INSTANTANEOUS PEAK FLOW		130	b <sup>311</sup>
INSTANTANEOUS PEAK STAGE		c <sup>3.13</sup>	Jun 17 1995
ANNUAL RUNOFF (AC-FT)	7730	8460	3.47
10 PERCENT EXCEEDS	31	46	14
50 PERCENT EXCEEDS	3.5	3.6	3.0
90 PERCENT EXCEEDS	2.2	2.6	1.9

e-Estimated.

a-Also occurred Jan 31 to Apr 4.

b-From rating curve extended above 65 ft<sup>3</sup>/s.

c-Maximum gage height 3.22 ft, May 19.

## BLUE RIVER BASIN

**09050100 TENMILE CREEK BELOW NORTH TENMILE CREEK AT FRISCO, CO**

LOCATION.--Lat 39°34'31", long 106°06'36", in SE<sup>1/4</sup>NW<sup>1/4</sup> sec.34, T.5 S., R.78 W., Summit County, Hydrologic Unit 14010002, on right bank 220 ft upstream from bridge on U.S. Highway 6, 160 ft downstream from North Tenmile Creek, and 0.6 mi west of Frisco.

DRAINAGE AREA.--93.3 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1957 to current year. Prior to October 1971, published as "below North Fork, at Frisco."

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 9,100 ft above sea level, from topographic map. Prior to Apr. 21, 1981 at site 720 ft downstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by a few small diversions upstream from station for irrigation and municipal use, and transbasin diversion from Robinson Reservoir, capacity, 2,520 acre-ft, in Eagle River basin. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	40	e32	e26	e24	e23	e28	97	492	424	96	41
2	52	38	e32	e26	e24	e23	e32	100	541	393	91	40
3	49	e36	e32	e26	e24	e23	e34	106	643	358	90	37
4	55	e35	e32	e26	e24	e23	e35	128	760	344	88	35
5	57	e33	e32	e26	e24	e22	e35	166	904	336	81	38
6	53	e32	e32	e26	e24	e21	e36	203	985	334	76	50
7	54	e30	e32	e26	e24	e21	36	240	937	313	73	55
8	56	29	e32	e26	e24	e21	39	283	912	291	71	43
9	48	e30	e32	e27	e24	e21	48	326	921	269	68	40
10	47	e30	e31	e26	e24	e21	59	331	908	260	65	35
11	50	e31	e31	e25	e24	e21	64	348	880	248	61	34
12	53	e32	e31	e25	e24	e21	61	428	833	232	58	37
13	58	e33	e31	e25	e24	e21	56	496	784	219	57	41
14	51	e34	e31	e25	e24	e21	46	568	750	209	55	44
15	52	35	e31	e25	e24	e21	52	635	755	199	54	54
16	53	32	e30	e25	e24	e21	51	743	731	193	54	56
17	52	32	e29	e25	e24	e21	50	823	713	195	52	42
18	49	34	e29	e25	e24	e20	50	807	704	195	51	41
19	44	33	e28	e25	e24	e22	51	940	683	183	54	46
20	40	e35	e28	e25	e24	e23	51	881	666	170	58	43
21	39	e34	e28	e25	e24	e22	49	660	750	161	56	41
22	41	e34	e28	e25	e23	e21	47	714	818	151	58	43
23	40	e34	e28	e25	e23	e21	49	732	667	141	57	52
24	41	e34	e28	e25	e23	e25	65	673	580	133	55	72
25	41	e34	e28	e25	e23	e26	98	758	523	129	51	63
26	39	e33	e28	e25	e23	e27	108	704	487	123	49	55
27	40	e32	e28	e25	e23	e28	109	545	507	120	49	49
28	39	e32	e28	e25	e23	e28	102	466	518	118	49	48
29	39	e32	e28	e25	e23	e28	98	440	465	117	48	50
30	39	e32	e27	e25	---	e23	96	468	448	114	45	48
31	40	---	e26	e24	---	e24	---	481	---	102	43	---
TOTAL	1464	995	923	785	688	704	1735	15290	21265	6774	1913	1373
MEAN	47.2	33.2	29.8	25.3	23.7	22.7	57.8	493	709	219	61.7	45.8
MAX	58	40	32	27	24	28	109	940	985	424	96	72
MIN	39	29	26	24	23	20	28	97	448	102	43	34
AC-FT	2900	1970	1830	1560	1360	1400	3440	30330	42180	13440	3790	2720

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1996, BY WATER YEAR (WY)

MEAN	32.0	24.8	19.4	16.7	16.8	18.5	37.9	252	478	197	73.5	43.7
MAX	77.7	76.2	34.5	34.0	33.8	46.0	95.0	493	805	607	251	127
(WY)	1985	1985	1994	1994	1983	1983	1962	1996	1983	1995	1984	1984
MIN	13.0	9.83	11.7	11.0	9.55	9.20	13.7	96.5	156	44.9	25.3	21.8
(WY)	1978	1978	1978	1963	1978	1976	1973	1995	1963	1977	1977	1977

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1958 - 1996

ANNUAL TOTAL	58769	53909										
ANNUAL MEAN	161	147										
HIGHEST ANNUAL MEAN												
LOWEST ANNUAL MEAN												
HIGHEST DAILY MEAN	1300	Jun 18	985	Jun 6								
LOWEST DAILY MEAN	e <sub>11</sub>	Jan 2	e <sub>20</sub>	Mar 18								
ANNUAL SEVEN-DAY MINIMUM	12	Jan 1	21	Mar 12								
INSTANTANEOUS PEAK FLOW			1200	Jun 5								
INSTANTANEOUS PEAK STAGE			4.56	Jun 5								
ANNUAL RUNOFF (AC-FT)	116600		106900									
10 PERCENT EXCEEDS	595		542									
50 PERCENT EXCEEDS	40		41									
90 PERCENT EXCEEDS	16		24									
					a1910	Jun 16	1965					
						6.15	Jun 16	1965				

e-Estimated.

a-From rating curve extended above 750 ft<sup>3</sup>/s.

## 09050700 BLUE RIVER BELOW DILLON, CO

LOCATION.--Lat 39°37'32", long 106°03'57", in SE<sup>1/4</sup>SE<sup>1/4</sup> sec.12, T.5 S., R.78 W., Summit County, Hydrologic Unit 14010002, on right bank 0.3 mi downstream from Dillon Dam, 0.1 mi upstream from Straight Creek, and 1.1 mi west of Dillon.

DRAINAGE AREA.--335 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1960 to current year. Statistical summary computed for 1963 to current year.

GAGE.--Water-stage recorder with satellite telemetry, and concrete control. Elevation of gage is 8,760 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since Sept. 3, 1963, by Dillon Reservoir, 0.3 mi upstream (station 09050600). Natural flow of stream affected by transmountain diversions, transbasin diversions, and diversions upstream from station for irrigation of about 400 acres of hay meadows. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	213	245	150	104	104	133	732	745	736	1130	358	104
2	209	245	131	104	104	144	733	745	734	1090	341	104
3	202	245	131	104	104	150	733	741	675	1030	331	104
4	215	244	131	104	104	151	733	743	610	976	328	103
5	214	244	131	104	104	151	733	748	610	852	314	104
6	207	244	131	104	104	151	733	726	724	888	299	104
7	201	245	131	104	104	151	733	707	1150	960	271	104
8	197	245	131	104	104	151	733	707	1510	979	288	104
9	194	245	131	104	104	151	734	722	1600	956	275	104
10	256	245	131	104	105	151	735	741	1670	929	262	104
11	287	245	131	104	105	151	738	740	1710	888	249	104
12	286	245	131	104	104	151	739	740	1780	846	238	104
13	295	245	131	104	104	151	740	740	1780	801	224	104
14	283	245	131	104	104	151	742	740	1780	758	172	104
15	284	245	121	104	104	254	741	741	1750	720	115	104
16	284	245	104	104	104	335	742	742	1730	692	107	104
17	284	245	104	104	105	334	747	738	1730	671	107	104
18	284	245	104	104	105	335	748	745	1730	658	106	104
19	271	245	104	104	104	335	754	747	1730	648	105	104
20	222	245	104	104	104	334	752	747	1730	619	104	104
21	197	245	104	104	104	334	751	673	1730	586	104	104
22	179	245	104	104	104	334	747	549	1710	552	104	104
23	168	245	104	104	104	335	747	505	1690	521	104	104
24	129	244	104	104	104	338	747	506	1690	492	101	104
25	105	243	104	104	104	340	747	508	1660	466	96	104
26	144	244	104	104	104	339	747	685	1470	439	110	104
27	234	245	104	104	104	339	747	916	1290	419	104	104
28	245	209	104	104	107	339	747	977	1260	402	104	104
29	245	177	104	105	121	392	747	973	1220	392	104	104
30	245	177	104	104	104	---	557	746	972	1170	387	104
31	245	---	104	104	---	681	---	887	---	375	104	---
TOTAL	7024	7171	3638	3225	3040	8343	22248	22896	42359	22122	5733	3119
MEAN	227	239	117	104	105	269	742	739	1412	714	185	104
MAX	295	245	150	105	121	681	754	977	1780	1130	358	104
MIN	105	177	104	104	104	133	732	505	610	375	96	103
AC-FT	13930	14220	7220	6400	6030	16550	44130	45410	84020	43880	11370	6190

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1996, BY WATER YEAR (WY)

MEAN	114	95.1	83.7	73.5	75.1	81.3	128	314	707	453	250	161
MAX	243	268	193	158	136	269	742	1101	1813	1476	999	348
(WY)	1987	1985	1985	1966	1984	1996	1996	1984	1984	1984	1984	1983
MIN	.000	23.2	44.6	31.0	47.6	48.6	39.3	24.0	32.3	51.5	51.7	18.6
(WY)	1964	1989	1984	1986	1986	1986	1965	1965	1981	1981	1981	1963

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1963 - 1996
ANNUAL TOTAL	141195	150918	
ANNUAL MEAN	387	412	212
HIGHEST ANNUAL MEAN			538
LOWEST ANNUAL MEAN			65.5
HIGHEST DAILY MEAN	1920	Jul 13	a 1780
LOWEST DAILY MEAN	50	May 1	96 Aug 25
ANNUAL SEVEN-DAY MINIMUM	51	Apr 25	b .00 Sep 4 1963
INSTANTANEOUS PEAK FLOW			.00 Sep 4 1963
INSTANTANEOUS PEAK STAGE		1800	2010 May 25 1984
ANNUAL RUNOFF (AC-FT)	280100	299300	c 3.88 May 25 1984
10 PERCENT EXCEEDS	1160	896	153300
50 PERCENT EXCEEDS	197	245	475
90 PERCENT EXCEEDS	55	104	101
			51

a-Also occurred Jun 13-14.

b-Also occurred Sep 5 to Nov 19, 1963.

c-Maximum gage height for period of record, 3.95 ft, Jun 22, 1983.

## BLUE RIVER BASIN

**09051050 STRAIGHT CREEK BELOW LASKEY GULCH, NEAR DILLON, CO**

**LOCATION.**--Lat 39°38'23", long 106°02'23", in SW<sup>1/4</sup>SW<sup>1/4</sup> sec.5, T.5 S., R.77 W., Summit County, Hydrologic Unit 14010002, on right bank, 120 ft upstream from culverts on Deer Trail Drive, in the community of Dillon Valley, 0.9 mi north of Dillon, 1.1 mi downstream of Laskey Gulch, and 1.8 mi upstream from mouth.

**DRAINAGE AREA.**--18.3 mi<sup>2</sup>.

**PERIOD OF RECORD.**--October 1986 to current year.

**GAGE.**--Water-stage recorder. Elevation of gage is 9,070 ft above sea level, from topographic map.

**REMARKS.**--Records fair except for estimated daily discharges, which are poor. Diversion upstream from station for municipal purposes downstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	11	e8.0	e6.1	e6.4	e6.8	e7.8	8.8	77	77	22	9.5
2	14	8.0	e7.8	e5.8	e6.4	e7.2	e8.2	9.5	81	73	21	9.2
3	13	8.4	e7.6	e5.6	e6.4	e7.2	e8.4	11	91	69	21	8.9
4	13	e8.6	e7.6	e5.4	e6.4	e7.2	e8.4	14	100	67	21	8.7
5	13	e9.0	e7.6	e5.4	e6.4	e7.2	e8.4	18	122	65	19	9.2
6	14	e9.2	e7.6	e5.4	e6.4	e7.2	e8.0	21	131	63	18	11
7	14	e9.4	e7.6	e5.4	e6.4	e7.2	e8.0	24	135	59	17	10
8	13	e9.6	e7.6	e5.4	e6.4	e7.2	e8.4	28	160	55	17	9.4
9	13	10	e7.6	e5.4	e6.4	e7.2	e8.8	30	155	52	16	9.1
10	13	9.8	e7.6	e5.4	e6.4	e7.2	e9.4	30	147	51	15	9.7
11	13	e9.8	e7.6	e5.4	e6.4	e7.2	e10	34	161	46	14	10
12	13	e9.7	e7.6	e5.4	e6.4	e7.4	e8.8	43	145	42	14	12
13	14	9.3	e7.6	e5.4	e6.4	e7.4	e8.0	49	116	39	13	13
14	13	e9.2	e7.6	e5.4	e6.4	e7.4	e7.8	54	114	37	13	12
15	12	e9.2	e7.2	e5.4	e6.4	e7.4	e7.9	73	114	37	13	12
16	12	e9.0	e6.8	e5.4	e6.4	e7.4	e8.2	108	109	38	13	11
17	12	e8.8	e6.4	e5.4	e6.4	e7.4	e8.4	94	109	37	12	11
18	12	e8.6	e6.4	e5.4	e6.4	e7.4	e8.4	95	116	40	12	11
19	12	e8.4	e6.4	e5.4	e6.4	e7.4	e8.6	110	118	35	12	12
20	11	e8.2	e6.4	e5.4	e6.4	e7.4	e8.8	124	135	31	13	12
21	11	e8.0	e6.4	e5.4	e6.4	e7.4	e8.6	89	148	30	12	12
22	11	e8.0	e6.4	e5.4	e6.4	e7.4	e8.7	93	157	29	12	12
23	9.4	e8.0	e6.4	e5.4	e6.4	e7.4	e9.0	98	132	27	13	13
24	12	e8.0	e6.4	e5.4	e6.4	e7.4	10	95	115	25	12	15
25	12	e8.0	e6.4	e5.4	e6.4	e7.4	12	113	108	26	11	13
26	12	e8.0	e6.4	e5.6	e6.4	e7.4	10	99	103	25	12	13
27	11	e8.0	e6.4	e5.3	e6.4	e7.4	10	86	102	25	12	13
28	11	e8.0	e6.4	e5.8	e6.4	e7.4	9.4	81	97	25	13	14
29	11	e8.0	e6.4	e6.0	e6.4	e7.4	9.7	80	89	26	12	14
30	11	e8.0	e6.4	e6.2	---	e7.4	8.4	71	83	25	10	14
31	11	---	e6.2	e6.4	---	e7.4	---	74	---	23	9.7	---
TOTAL	379.4	263.2	216.8	171.6	185.6	226.8	264.5	1957.3	3570	1299	444.7	343.7
MEAN	12.2	8.77	6.99	5.54	6.40	7.32	8.82	63.1	119	41.9	14.3	11.5
MAX	14	11	8.0	6.4	6.4	7.4	12	124	161	77	22	15
MIN	9.4	8.0	6.2	5.3	6.4	6.8	7.8	8.8	77	23	9.7	8.7
AC-FT	753	522	430	340	368	450	525	3880	7080	2580	882	682

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1996, BY WATER YEAR (WY)

MEAN	7.22	5.92	4.63	3.96	3.93	4.29	6.45	26.2	65.6	32.1	12.4	8.23
MAX	12.2	8.77	6.99	5.54	6.40	7.32	9.99	63.1	119	89.0	23.6	13.3
(WY)	1996	1996	1996	1996	1996	1996	1989	1996	1996	1995	1995	1995
MIN	4.08	3.86	3.71	2.43	2.39	3.14	3.55	9.45	36.2	11.7	8.68	4.31
(WY)	1990	1990	1995	1992	1992	1992	1995	1995	1987	1994	1994	1989

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1987 - 1996

ANNUAL TOTAL	8072.9	9322.6		
ANNUAL MEAN	22.1	25.5	15.1	
HIGHEST ANNUAL MEAN			25.5	1996
LOWEST ANNUAL MEAN			10.9	1987
HIGHEST DAILY MEAN	226	Jun 17	226	Jun 17 1995
LOWEST DAILY MEAN	e2.6	Mar 26	1.8	Jan 31 1992
ANNUAL SEVEN-DAY MINIMUM	2.8	Mar 23	1.9	Jan 26 1992
INSTANTANEOUS PEAK FLOW		205	a416	Jun 17 1995
INSTANTANEOUS PEAK STAGE		5.35	5.78	Jun 17 1995
ANNUAL RUNOFF (AC-FT)	16010	18490	10940	
10 PERCENT EXCEEDS	77	90	40	
50 PERCENT EXCEEDS	9.0	9.7	6.6	
90 PERCENT EXCEEDS	3.8	6.4	3.5	

e-Estimated.

a-From rating curve extended above 150 ft<sup>3</sup>/s.

## RESERVOIRS IN BLUE RIVER BASIN

09050600 DILLON RESERVOIR.--Lat 39°37'14", long 106°03'53", in NE<sup>1/4</sup> sec.13, T.5 S., R.78 W., Summit County, Hydrologic Unit 14010002, in gatehouse at dam, 0.8 mi upstream from Straight Creek, about 1.3 mi southwest of Dillon, and 3.5 mi northeast of Frisco. DRAINAGE AREA, 335 mi<sup>2</sup>. PERIOD OF RECORD, September 1963 to current year. GAGE, nonrecording gage read once daily. Datum of gage is above sea level, (levels by Denver Board of Water Commissioners); gage readings have been reduced to elevations above sea level.

Reservoir is earth and rockfill dam. Dam completed and storage began Sept. 3, 1963; dead storage pool filled Sept. 12, 1963. Capacity, 254,000 acre-ft between elevations 8,829.00 ft, invert of outlet valve, and 9,017.00 ft, crest of spillway. Dead storage, 3,270 acre-ft. Figures given represent usable contents. Reservoir stores water for transmountain diversion to South Platte River basin through Harold D. Roberts tunnel for municipal use by city of Denver. Records provided by Denver Board of Water Commissioners.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 262,200 acre-ft, June 30, 1983, elevation, 9,019.46 ft; minimum since appreciable storage was attained in July 1964, 45,310 acre-ft, Apr. 20, 1965, elevation, 8,904.16 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 258,600 acre-ft, July 7, elevation, 9,018.38 ft; minimum, 198,400 acre ft, May 5, elevation, 8,997.87 ft.

09057000 GREEN MOUNTAIN RESERVOIR.--Lat 39°52'42", long 106°19'45", in NE<sup>1/4</sup> sec.15, T.2 S., R.80 W., Summit County, Hydrologic Unit 14010002, in hoist house at right end of dam, 0.6 mi upstream from Elliott Creek, and 13 mi southeast of Kremmling. DRAINAGE AREA, 598 mi<sup>2</sup>, includes 15.3 mi<sup>2</sup> of Elliott Creek above diversion for Elliott Creek feeder canal. PERIOD OF RECORD, November 1942 to current year. REVISED RECORDS, WSP 2124: Drainage area. GAGE, Water-stage recorder. Datum of gage is above sea level, (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above sea level.

Reservoir is formed by an earth and rockfill dam. Dam completed and storage began November 1942. Capacity, 146,900 acre-ft between elevations 7,800 ft, sill of outlet gate, and 7,950 ft, top of radial spillway gates. Dead storage, 6,860 acre-ft. Figures given represent usable contents. Reservoir is used for power development and storage for replacement of water diverted to South Platte River basin. Water released to fill decrees during late irrigation season when flow of Colorado River is deficient. Records provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 148,900 acre-ft, July 10, 1947, elevation, 7,950.95 ft; minimum since appreciable storage was attained, 388 acre-ft, Jan. 12, 1963, elevation, 7,801.70 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 145,600 acre-ft, Aug. 3-5, elevation, 7,949.42 ft; minimum, 41,730 acre-ft, May 4, elevation, 7,879.00 ft.

## MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

Date	Elevation a(feet)	Contents (acre-feet)	Change in contents (acre-feet)	Elevation a(feet)	Contents (acre-feet)	Change in contents (acre-feet)
09050600 DILLON RESERVOIR						
Sept. 30.....	9,017.35	255,200	-	7,947.64	141,800	-
Oct. 31.....	9,016.19	251,400	-3,800	7,948.20	143,000	+1,200
Nov. 30.....	9,014.06	244,700	-6,700	7,944.88	136,200	-6,800
Dec. 31.....	9,013.61	243,300	-1,400	7,936.72	120,200	-16,000
CAL YR 1995....			+22,800			+51,770
Jan. 31.....	9,013.55	243,100	-200	7,927.44	103,600	-16,600
Feb. 29.....	9,013.36	242,500	-600	7,917.68	87,960	-15,640
Mar. 31.....	9,009.68	231,300	-11,200	7,900.06	64,010	-23,950
Apr. 30.....	9,998.91	201,200	-30,100	7,880.71	43,310	-20,700
May 31.....	9,011.99	238,300	+37,100	7,910.97	78,260	+34,950
June 30.....	9,017.74	256,500	+18,200	7,948.09	142,800	+64,540
July 31.....	9,017.63	256,100	-400	7,949.32	145,300	+2,500
Aug. 31.....	9,015.52	249,300	-6,800	7,943.65	133,700	-11,600
Sept. 30.....	9,013.61	243,300	-6,000	7,937.59	121,900	-11,800
WTR YR 1996....			-11,900			-19,900

a-Above sea level.

## BLUE RIVER BASIN

**09057500 BLUE RIVER BELOW GREEN MOUNTAIN RESERVOIR, CO**

**LOCATION.**--Lat 39°52'49", long 106°20'00", in SW<sup>1/4</sup>NE<sup>1/4</sup> sec. 15, T.2 S., R.80 W., Summit County, Hydrologic Unit 14010002, on left bank 0.3 mi upstream from Elliott Creek, 0.3 mi downstream from Green Mountain Dam, and 13 mi southeast of Kremmling.

**DRAINAGE AREA.**--599 mi<sup>2</sup>, includes 15.3 mi<sup>2</sup> of Elliott Creek above diversion for Elliott Creek feeder canal.

**WATER-DISCHARGE RECORDS**

**PERIOD OF RECORD.**--October 1937 to current year. Prior to October 1943, published as Blue River below Green Mountain Reservoir, near Kremmling. Statistical summary computed for 1943 to current year. Water-quality data available, January 1986 to September 1987.

**REVISED RECORDS.**--WSP 2124: Drainage area.

**GAGE.**--Water-stage recorder with satellite telemetry. Datum of gage is 7,682.66 ft above sea level, (levels by U.S. Bureau of Reclamation). Prior to Oct. 1, 1951, water-stage recorder at site 3.7 mi downstream at different datum.

**REMARKS.**--Records good except for estimated daily discharges, which are poor. Flow regulated by Green Mountain Reservoir since November 1942 (station 09057000). Diversions for irrigation of about 5,000 acres upstream from station. Transmountain diversions upstream from station (see elsewhere in this report).

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	388	394	439	444	427	490	1050	1310	998	1920	e607	551
2	389	395	439	444	424	490	1150	1260	1000	e1850	e620	552
3	388	397	438	442	426	488	1190	1200	1000	e1850	e620	553
4	388	398	438	441	426	489	1240	1200	1000	e1850	e620	556
5	394	398	441	444	423	487	1280	737	853	e1850	e614	569
6	388	399	443	441	428	481	1280	1140	690	e1850	e610	555
7	388	398	443	440	433	463	1270	1200	689	e1850	e560	525
8	386	416	443	439	437	491	1280	1040	700	e1670	e516	524
9	385	441	442	436	442	487	1280	916	712	e1490	e452	524
10	382	424	442	437	440	487	1290	919	717	e1490	e452	523
11	389	445	440	437	441	511	1300	921	704	1310	e460	522
12	394	443	438	436	442	525	1300	924	708	1310	e470	529
13	395	445	435	436	439	501	1300	929	703	1310	e430	517
14	395	447	433	435	440	554	1300	889	707	1310	e540	502
15	394	443	430	434	438	669	1300	863	713	1070	618	502
16	395	441	430	434	438	732	1300	868	711	913	568	498
17	361	443	431	434	438	757	1290	1090	1060	903	521	494
18	257	444	440	434	437	783	1330	1410	1450	1020	518	444
19	154	445	447	435	436	825	1320	1420	1810	1200	522	353
20	103	444	444	434	439	826	1320	1090	2340	1200	509	356
21	99	442	442	431	437	877	1320	633	2480	1200	533	351
22	100	441	442	436	434	1030	1330	478	2450	1080	596	351
23	99	441	441	437	439	1010	1330	486	2460	898	620	339
24	100	440	441	437	446	1000	1330	496	2470	813	619	296
25	105	441	440	432	446	998	1330	497	2470	815	618	318
26	207	442	440	432	448	991	1320	500	2460	763	594	298
27	399	442	440	431	445	990	1320	502	2320	717	567	277
28	394	438	442	431	452	997	1320	764	2150	717	561	275
29	394	437	443	433	473	992	1310	997	2150	647	555	273
30	394	438	443	430	---	989	1310	1000	2150	592	553	274
31	395	---	445	430	---	987	---	997	---	e607	552	---
TOTAL	9799	12902	13635	13517	12714	22397	38590	28676	42825	38065	17195	13201
MEAN	316	430	440	436	438	722	1286	925	1427	1228	555	440
MAX	399	447	447	444	473	1030	1330	1420	2480	1920	620	569
MIN	99	394	430	430	423	463	1050	478	689	592	430	273
AC-FT	19440	25590	27050	26810	25220	44420	76540	56880	84940	75500	34110	26180

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1996, BY WATER YEAR (WY)

MEAN	378	294	310	304	291	318	398	541	739	814	616	495
MAX	1258	800	580	566	559	864	1286	1557	2134	2536	1547	846
(WY)	1963	1963	1947	1948	1962	1962	1996	1952	1984	1984	1984	1990
MIN	144	82.5	.72	.46	.19	.61	47.2	55.7	54.4	131	270	192
(WY)	1950	1943	1943	1943	1943	1943	1943	1969	1981	1981	1964	1946

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR				FOR 1996 WATER YEAR				WATER YEARS 1943 - 1996			
ANNUAL TOTAL	220171				263516							
ANNUAL MEAN	603				720							
HIGHEST ANNUAL MEAN												
LOWEST ANNUAL MEAN												
HIGHEST DAILY MEAN	4010				Jul 12				946			
LOWEST DAILY MEAN	57				May 2				200			
ANNUAL SEVEN-DAY MINIMUM	61				May 2				1984			
INSTANTANEOUS PEAK FLOW												
INSTANTANEOUS PEAK STAGE												
ANNUAL RUNOFF (AC-FT)	436700				522700				10.85			
10 PERCENT EXCEEDS	1480				1310				Jul 12 1995			
50 PERCENT EXCEEDS	389				495				Dec 6 1942			
90 PERCENT EXCEEDS	149				394				Jan 5 1943			

e-Estimated.

a-Also occurred Oct 23.

b-No flow at times in 1943.

c-Minimum daily discharge (prior to Green Mountain Reservoir), 80 ft<sup>3</sup>/s, Feb 18-24, 1938, Feb 18-19, 1940.

**09057500 BLUE RIVER BELOW GREEN MOUNTAIN RESERVOIR, CO--Continued**  
**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--October 1995 to September 1996.

INSTRUMENTATION.--Water-quality monitor since October 1995.

REMARKS.--Water temperature and specific conductance records are rated good.

**EXTREMES FOR CURRENT PERIOD.--**

SPECIFIC CONDUCTANCE: Maximum, 238 microsiemens, May 5-6; minimum daily, 148 microsiemens, Sept. 5.

WATER TEMPERATURE: Maximum 13.0°C, Sept. 15-16; minimum, 2.2°C, Mar. 30 to April 7.

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	166	159	163	167	163	164	168	165	167
2	---	---	---	164	159	162	166	163	164	169	165	167
3	---	---	---	165	159	161	166	163	164	169	165	167
4	---	---	---	165	160	162	166	163	165	169	166	167
5	161	158	159	164	158	161	166	163	165	169	165	168
6	162	155	158	162	159	160	167	163	165	170	166	168
7	163	154	158	163	158	161	167	164	165	170	166	168
8	163	158	160	163	159	161	167	164	165	171	167	168
9	162	157	159	162	159	161	166	164	165	170	166	168
10	160	156	158	162	159	161	167	163	165	171	167	169
11	159	156	158	162	159	161	167	164	165	171	166	169
12	163	157	158	162	159	160	167	164	166	171	167	169
13	163	157	161	162	159	161	167	164	166	172	168	170
14	163	157	160	162	159	161	167	164	166	172	168	170
15	163	157	160	163	159	161	167	164	166	172	168	170
16	166	159	162	162	160	161	167	164	166	172	169	170
17	166	160	163	163	159	161	167	164	166	172	169	170
18	168	161	165	163	159	161	167	165	166	173	169	171
19	169	160	165	163	160	161	168	164	166	173	169	171
20	167	157	162	163	160	162	167	164	166	173	169	171
21	169	156	162	164	161	162	168	164	166	173	170	171
22	168	160	163	166	162	164	168	164	166	173	169	171
23	167	159	163	166	163	164	168	165	166	173	170	171
24	170	157	162	164	161	162	167	164	166	174	170	172
25	172	160	165	166	162	164	168	164	166	174	170	172
26	172	161	166	167	163	164	168	164	166	174	170	172
27	164	160	162	165	162	163	168	165	166	174	171	173
28	161	159	160	165	162	164	168	165	166	174	170	173
29	165	159	161	165	161	163	168	164	166	174	171	173
30	168	161	164	166	162	164	168	165	166	174	171	173
31	168	162	164	---	---	---	168	165	166	175	171	173
MONTH	---	---	---	167	158	162	168	163	166	175	165	170

BLUE RIVER BASIN

**09057500 BLUE RIVER BELOW GREEN MOUNTAIN RESERVOIR, CO--Continued**

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## BLUE RIVER BASIN

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## 09057500 BLUE RIVER BELOW GREEN MOUNTAIN RESERVOIR, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER				NOVEMBER				DECEMBER			
1	11.9	11.5	11.7	8.6	8.2	8.4	5.5	5.3	5.3	3.6	3.5	3.6
2	11.9	11.5	11.7	8.4	8.2	8.3	5.3	5.2	5.3	3.6	3.5	3.6
3	11.8	11.5	11.6	8.3	8.0	8.2	5.2	5.1	5.2	3.6	3.6	3.6
4	11.7	11.3	11.4	8.2	8.0	8.1	5.1	5.0	5.1	3.6	3.5	3.6
5	11.6	11.3	11.5	8.0	7.7	7.9	5.1	5.0	5.0	3.6	3.5	3.5
6	11.7	11.0	11.4	7.8	7.6	7.7	5.0	4.9	4.9	3.6	3.5	3.5
7	11.4	10.8	11.1	7.7	7.6	7.6	4.9	4.8	4.9	3.6	3.5	3.5
8	10.9	10.6	10.8	7.6	7.4	7.5	4.9	4.8	4.8	3.5	3.4	3.5
9	10.9	10.5	10.7	7.5	7.3	7.4	4.8	4.7	4.8	3.5	3.4	3.5
10	10.9	10.4	10.7	7.4	6.9	7.3	4.7	4.6	4.7	3.5	3.4	3.5
11	10.8	10.3	10.5	7.2	7.0	7.2	4.6	4.4	4.5	3.5	3.4	3.4
12	10.6	10.1	10.4	7.0	6.9	6.9	4.5	4.4	4.4	3.5	3.4	3.4
13	10.5	10.2	10.4	6.9	6.7	6.8	4.6	4.3	4.4	3.5	3.4	3.4
14	10.6	10.1	10.3	6.7	6.6	6.7	4.4	4.3	4.3	3.4	3.3	3.4
15	10.6	10.0	10.3	6.7	6.6	6.6	4.3	4.0	4.1	3.4	3.3	3.4
16	10.3	9.8	10.1	6.6	6.5	6.5	4.0	3.9	3.9	3.5	3.4	3.4
17	10.2	9.8	10.0	6.6	6.5	6.5	3.9	3.8	3.9	3.4	3.3	3.4
18	10.1	9.6	9.8	6.5	6.4	6.4	3.8	3.4	3.7	3.4	3.3	3.3
19	10.0	9.4	9.7	6.5	6.4	6.4	3.6	3.3	3.5	3.4	3.3	3.3
20	10.4	9.4	9.7	6.4	6.3	6.3	3.6	3.2	3.4	3.4	3.3	3.3
21	10.3	9.4	9.7	6.3	6.2	6.3	3.6	2.8	3.2	3.4	3.3	3.3
22	9.8	9.1	9.5	6.2	6.1	6.2	3.7	3.5	3.6	3.4	3.3	3.3
23	9.9	9.2	9.4	6.1	6.0	6.1	3.6	3.5	3.6	3.4	3.3	3.3
24	9.8	9.1	9.3	6.1	6.0	6.1	3.6	3.5	3.5	3.3	3.3	3.3
25	9.6	8.8	9.1	6.0	5.9	6.0	3.5	3.4	3.4	3.3	3.2	3.3
26	9.4	8.8	9.0	5.9	5.7	5.9	3.6	3.5	3.6	3.3	3.2	3.3
27	9.1	9.0	9.1	5.8	5.7	5.8	3.6	3.6	3.6	3.3	3.2	3.2
28	9.1	9.0	9.1	5.7	5.7	5.7	3.6	3.6	3.6	3.3	3.2	3.2
29	9.0	8.7	8.9	5.7	5.5	5.6	3.6	3.6	3.6	3.3	3.2	3.3
30	8.8	8.5	8.6	5.6	5.5	5.5	3.7	3.6	3.6	3.2	3.2	3.2
31	8.6	8.3	8.5	---	---	---	3.6	3.6	3.6	3.2	3.2	3.2
MONTH	11.9	8.3	10.1	8.6	5.5	6.8	5.5	2.8	4.2	3.6	3.2	3.4
	FEBRUARY				MARCH				APRIL			
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	3.3	3.2	3.2	3.0	2.9	2.9	2.3	2.2	2.3	3.6	3.5	3.5
2	3.2	3.1	3.2	3.1	2.9	3.0	2.3	2.2	2.3	3.7	3.5	3.6
3	3.3	3.1	3.2	3.1	2.9	3.0	2.2	2.2	2.2	3.8	3.7	3.7
4	3.2	3.1	3.2	3.0	2.9	2.9	2.2	2.2	2.2	3.9	3.6	3.8
5	3.3	3.2	3.2	3.0	2.9	2.9	2.2	2.2	2.2	4.3	3.7	3.9
6	3.3	3.2	3.2	3.0	2.9	2.9	2.2	2.2	2.2	4.2	3.9	4.0
7	3.3	3.2	3.2	3.0	2.8	2.9	2.3	2.2	2.2	4.2	4.0	4.1
8	3.3	3.2	3.2	3.0	2.8	2.9	2.3	2.3	2.3	4.5	4.2	4.4
9	3.3	3.1	3.2	3.0	2.8	2.8	2.4	2.3	2.4	5.0	4.4	4.7
10	3.2	3.1	3.1	3.0	2.8	2.8	2.5	2.4	2.4	5.2	4.6	4.9
11	3.2	3.1	3.1	2.9	2.8	2.8	2.5	2.5	2.5	5.7	4.9	5.2
12	3.2	3.1	3.1	2.9	2.8	2.8	2.6	2.5	2.6	6.0	4.9	5.5
13	3.2	3.0	3.1	2.9	2.7	2.8	2.7	2.6	2.7	6.5	5.0	5.8
14	3.2	3.1	3.1	2.9	2.8	2.8	2.8	2.7	2.8	5.9	4.9	5.3
15	3.2	3.1	3.1	2.9	2.8	2.8	3.0	2.8	2.9	6.6	5.5	5.9
16	3.2	3.0	3.1	2.8	2.8	2.8	3.0	2.9	3.0	6.3	5.4	5.8
17	3.2	3.0	3.1	2.8	2.7	2.8	3.4	3.0	3.0	6.5	5.6	6.0
18	3.2	3.0	3.1	2.8	2.7	2.8	3.2	3.0	3.1	6.8	5.4	6.1
19	3.1	3.1	3.1	2.8	2.7	2.7	3.2	3.0	3.2	6.9	6.1	6.5
20	3.1	3.0	3.1	2.8	2.7	2.7	3.2	3.1	3.2	7.1	5.7	6.4
21	3.1	3.0	3.1	2.8	2.7	2.7	3.2	3.1	3.2	6.6	5.8	6.2
22	3.1	3.0	3.1	2.7	2.6	2.7	3.2	3.1	3.2	6.9	5.8	6.4
23	3.2	3.0	3.0	2.7	2.6	2.7	3.2	3.2	3.2	7.1	5.9	6.4
24	3.1	3.0	3.0	2.7	2.6	2.6	3.3	3.2	3.3	10.0	6.1	7.5
25	3.1	3.0	3.0	2.7	2.6	2.6	3.4	3.2	3.3	9.2	6.8	8.1
26	3.1	2.9	3.0	2.6	2.4	2.5	3.4	3.3	3.3	7.8	7.1	7.6
27	3.1	2.9	3.0	2.5	2.4	2.4	3.4	3.3	3.3	7.7	7.4	7.5
28	3.1	2.9	3.0	2.4	2.3	2.4	3.3	3.2	3.3	7.7	7.3	7.5
29	3.0	2.9	2.9	2.4	2.3	2.3	3.3	3.2	3.2	7.4	7.1	7.3
30	---	---	---	2.3	2.2	2.3	3.5	3.3	3.3	7.5	6.9	7.2
31	---	---	---	2.3	2.2	2.2	---	---	---	7.6	6.9	7.3
MONTH	3.3	2.9	3.1	3.1	2.2	2.7	3.5	2.2	2.8	10.0	3.5	5.7

## BLUE RIVER BASIN

**09057500 BLUE RIVER BELOW GREEN MOUNTAIN RESERVOIR, CO--Continued**

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	7.4	6.9	7.1	8.6	8.3	8.4	10.7	9.9	10.3	12.4	11.8	12.1
2	7.9	6.9	7.3	8.7	8.4	8.5	10.7	10.1	10.4	12.4	12.1	12.2
3	7.7	6.9	7.2	8.8	8.4	8.6	10.9	10.1	10.4	12.4	12.2	12.3
4	7.6	6.9	7.2	8.7	8.3	8.6	10.9	10.3	10.5	12.6	12.2	12.3
5	7.9	6.9	7.4	8.8	8.5	8.7	10.9	10.1	10.5	12.6	11.8	12.4
6	7.9	7.1	7.4	9.0	8.5	8.7	11.0	10.2	10.6	12.5	12.2	12.4
7	8.1	7.1	7.5	9.0	8.6	8.8	11.3	10.3	10.7	12.6	12.3	12.5
8	7.9	7.3	7.5	9.5	8.7	8.9	11.0	10.6	10.8	12.6	12.3	12.5
9	7.8	7.4	7.6	9.1	8.8	8.9	11.0	10.4	10.7	12.7	12.4	12.5
10	8.0	7.3	7.6	9.2	---	---	11.0	10.5	10.8	12.8	12.4	12.6
11	8.0	7.3	7.6	---	---	---	11.1	10.6	10.8	12.9	12.4	12.7
12	7.8	7.3	7.6	---	---	---	11.1	10.5	10.9	12.8	12.4	12.7
13	7.9	7.5	7.7	---	---	---	11.1	10.7	11.0	12.9	12.7	12.7
14	7.8	7.6	7.7	---	---	---	11.2	10.8	11.0	12.9	12.6	12.7
15	7.7	7.6	7.7	---	---	---	11.3	10.7	11.1	13.0	12.7	12.8
16	7.8	7.5	7.7	---	---	---	11.4	10.7	11.1	13.0	12.7	12.8
17	7.9	7.4	7.7	---	---	---	11.4	10.9	11.2	12.9	---	---
18	8.0	7.6	7.7	---	---	---	11.6	10.8	11.3	---	---	---
19	8.0	7.6	7.8	---	---	---	11.7	10.9	11.3	---	---	---
20	8.1	7.7	7.9	---	---	---	11.8	11.2	11.4	---	---	---
21	8.1	7.8	7.9	---	---	---	11.7	11.0	11.4	---	---	---
22	8.2	7.8	8.0	---	---	---	11.8	11.2	11.5	---	---	---
23	8.2	8.0	8.1	---	---	---	11.9	11.3	11.7	---	---	---
24	8.4	8.0	8.2	---	---	---	11.9	11.2	11.6	---	---	---
25	8.3	8.0	8.2	---	---	---	11.9	11.4	11.7	---	---	---
26	8.6	8.1	8.2	---	---	---	12.2	11.5	11.8	---	---	---
27	8.6	8.1	8.3	---	---	---	12.0	11.5	11.8	---	---	---
28	8.4	8.2	8.3	---	---	---	12.1	11.5	11.8	---	---	---
29	8.5	8.2	8.4	---	---	---	12.2	11.7	11.9	---	---	---
30	8.6	8.3	8.5	---	---	---	12.2	11.7	12.0	---	---	---
31	---	---	---	---	---	---	12.3	11.9	12.1	---	---	---
MONTH	8.6	6.9	7.8	---	---	---	12.3	9.9	11.2	---	---	---

## 09058000 COLORADO RIVER NEAR KREMMLING, CO

LOCATION.--Lat 40°02'12", long 106°26'22", in NE<sup>1/4</sup>SW<sup>1/4</sup> sec.23, T.1 N., R.81 W., Grand County, Hydrologic Unit 14010001, on right bank at upstream end of Gore Canyon, 3.0 mi southwest of Kremmling and 3.8 mi downstream from Blue River.

DRAINAGE AREA.--2,382 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1904 to September 1918 (published as Grand River near Kremmling), October 1961 to September 1970, October 1971 to current year. Statistical summary computed for 1962 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 7,320 ft above sea level, from topographic map. See WSP 1313 for history of changes prior to Oct. 1, 1961.

REMARKS.--Records good except for estimated daily discharges, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, diversions for irrigation of about 40,000 acres upstream from station, and return flow from irrigated areas.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	698	798	776	e635	e625	697	2060	2840	2630	4120	1090	1020
2	685	805	774	e635	e620	705	2350	2820	2560	3660	1060	1010
3	671	771	772	e635	e620	698	2600	2350	2480	3420	1060	1000
4	689	755	749	e635	e620	704	2610	2380	2400	3010	1040	935
5	713	756	774	e635	e620	714	2700	2300	2290	2830	1040	846
6	702	774	766	e635	e620	710	2690	2770	2180	2890	1020	859
7	688	786	748	e635	e620	691	2750	3130	2440	3150	976	845
8	690	775	744	e635	e620	707	2780	3190	2600	3170	932	841
9	696	813	733	e635	e625	706	3110	3140	2670	2720	924	838
10	685	819	744	e635	e625	711	3350	3290	2870	2470	961	828
11	685	779	727	e635	e625	729	3310	3450	2890	2160	949	814
12	676	793	682	e635	e625	816	3090	3590	2880	2040	933	826
13	709	853	692	e635	e630	837	3020	3940	2930	1980	863	852
14	711	893	691	e635	e630	907	2820	4330	3190	1950	904	846
15	684	875	637	e635	e630	1110	2710	4430	3390	1890	1020	864
16	672	847	600	e635	e630	1170	2710	4500	3780	1600	981	865
17	663	820	590	e635	e630	1220	2790	5040	4140	1580	969	863
18	588	824	633	e635	e630	1210	2870	5880	4880	1630	913	860
19	496	814	630	e635	e640	1270	2800	5780	5090	1870	896	748
20	419	802	620	e635	e640	1300	2680	5650	6530	1870	871	756
21	395	802	628	e635	e640	1350	2670	4700	6980	1840	869	757
22	410	795	640	e635	e640	1580	2630	3460	6960	1740	940	736
23	425	787	635	e635	e640	1610	2600	2780	7970	1550	1020	748
24	406	789	613	e635	e650	1600	2780	2340	7520	1410	1140	682
25	419	775	621	e635	e650	1550	3230	2390	6410	1380	1140	738
26	439	791	618	e630	e650	1560	3140	2760	5930	1280	1100	770
27	668	794	615	e630	e650	1580	3150	3250	5560	1180	1010	754
28	701	762	619	e630	e655	1690	3090	3050	5290	1170	1030	752
29	692	760	e640	e630	653	1820	2940	3360	5150	1160	1050	771
30	714	771	629	e625	---	1900	2840	2970	4610	1090	1030	784
31	769	---	e635	e625	---	1930	---	2690	---	1080	1020	---
TOTAL	19258	23978	20975	19645	18353	35782	84870	108550	127200	64890	30751	24808
MEAN	621	799	677	634	633	1154	2829	3502	4240	2093	992	827
MAX	769	893	776	635	655	1930	3350	5880	7970	4120	1140	1020
MIN	395	755	590	625	620	691	2060	2300	2180	1080	863	682
AC-FT	38200	47560	41600	38970	36400	70970	168300	215300	252300	128700	60990	49210

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1996, BY WATER YEAR (WY)

MEAN	740	649	573	552	543	646	1043	1907	2091	1600	1065	849
MAX	1413	1029	1067	1000	1025	1394	3297	6200	7160	5840	2321	1366
(WY)	1963	1985	1985	1985	1962	1962	1962	1984	1984	1983	1984	1984
MIN	547	352	277	278	294	331	536	477	379	539	630	733
(WY)	1989	1978	1964	1964	1964	1977	1964	1977	1966	1963	1963	1969

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1962 - 1996
ANNUAL TOTAL	473987	579060	
ANNUAL MEAN	1299	1582	
HIGHEST ANNUAL MEAN			1024
LOWEST ANNUAL MEAN			2378
HIGHEST DAILY MEAN	7020	Jul 14	1984
LOWEST DAILY MEAN	296	Feb 13	1963
ANNUAL SEVEN-DAY MINIMUM	301	Feb 11	1963
INSTANTANEOUS PEAK FLOW		8450	1984
INSTANTANEOUS PEAK STAGE		14.09	1984
ANNUAL RUNOFF (AC-FT)	940200	1149000	741600
10 PERCENT EXCEEDS	3970	3240	1900
50 PERCENT EXCEEDS	707	852	759
90 PERCENT EXCEEDS	349	630	425

e-Estimated.

a-Maximum daily discharge for period of record, 20000 ft<sup>3</sup>/s, Jun 7, 1912.

b-Minimum discharge observed for period of record, 166 ft<sup>3</sup>/s, Dec 19, 1907.

c-Maximum discharge observed for period of record, 21500 ft<sup>3</sup>/s, Jun 7, 1912, gage height, 21.8 ft, datum then in use, from rating curve extended above 14000 ft<sup>3</sup>/s.

**COLORADO RIVER MAIN STEM**  
**09058000 COLORADO RIVER NEAR KREMMLING, CO--Continued**

**WATER-QUALITY RECORDS**

PERIOD OF RECORD--April 1989 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-					COLI-			STREP-		HARD-	CALCIUM	MAGNE-	
		CHARGE,	SPE-	INST.	CIFIC	CUBIC	CON-	PH	TEMPER-	OXYGEN,	FORM,	TOCOCCI	FECAL,	NESS	SOLVED
		FEET	DUCT-	(STAND-	ANCE	ARD	ATURE	DIS-	0.7	KF AGAR	FECAL,	TOTAL	(MG/L)	SOLVED	
		PER	SECOND	(US/CM)		UNITS)	(DEG C)	SOLVED	(COLS./	(COLS./	PER	(MG/L)	AS	SOLVED	
								(MG/L)	100 ML)	100 ML)	CACO3)	AS CACO3)	AS CA)	(MG/L)	
OCT 25...	1100	514		279		8.4		3.0	9.0	K5	K2	110	32	6.9	
DEC 06...	1200	786		171		7.8		3.0	9.2	K14	K1	66	21	3.2	
APR 23...	1030	2610		243		8.2		4.0	9.3	K4	K2	97	30	5.4	
JUN 11...	1030	2860		198		8.1		12.0	8.1	80	58	75	23	4.1	
JUL 18...	1030	1570		190		7.9		13.0	7.6	33	34	75	24	3.6	
AUG 13...	1000	888		247		8.0		15.5	6.8	14	18	96	29	5.7	
DATE		SODIUM,	SODIUM	POTAS-	ALKA-	SULFATE	CHLO-	FLUO-	SILICA,	SOLIDS,	SOLIDS,	SUM OF	CONSTI-	TUENTS,	
		DIS-	AD-	SUIM,	LINITY	DIS-	RIDE,	RIDE,	DIS-	RESIDUE	AT 180	DEG. C	DIS-	DIS-	
		SOLVED	SORP-	DIS-	LAB	SOLVED	DIS-	DIS-	SOLVED	AS NA)	(MG/L)	AS	SOLVED	SOLVED	SOLVED
		(MG/L)	TION	(MG/L)	(MG/L)	AS	(MG/L)	SOLVED	(MG/L)	AS K)	AS	AS	(MG/L)	(MG/L)	(MG/L)
			RATIO	AS	CACO3)	AS	AS SO4)	AS CL)	AS F)						
OCT 25...	12	0.5		1.8		80		52		2.8	0.30	11	178	167	
DEC 06...	5.7	0.3		1.4		56		22		2.5	0.30	7.2	96	97	
APR 23...	7.1	0.3		1.8		59		51		3.6	0.40	7.3	164	143	
JUN 11...	6.4	0.3		1.7		59		28		1.9	0.30	11	116	112	
JUL 18...	6.8	0.3		1.7		63		25		2.4	0.40	10	116	113	
AUG 13...	8.3	0.4		2.0		71		44		2.2	0.30	9.4	154	145	
DATE		SOLIDS,	SOLIDS,	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	PHOS-	PHOS-	PHOS-	PHORUS	ORTHO,	DIS-	
		DIS-	DIS-	GEN,	GEN,	GEN,	GEN,	AMONIA +	PHORUS	PHORUS	PHORUS	DIS-	DIS-	SOLVED	
		SOLVED	SOLVED	NITRITE	NO2+NO3	AMMONIA	ORGANIC	ORGANIC	TOTAL	TOTAL	TOTAL	(MG/L)	(MG/L)	(MG/L)	
		(TONS	(TONS	DIS-	DIS-	DIS-	DIS-	TOTAL	(MG/L)	(MG/L)	(MG/L)	AS P)	AS P)	AS P)	
		PER	PER	SOLVED	SOLVED	SOLVED	SOLVED	(MG/L)	AS N)	AS N)	AS N)				
		AC-FT)	DAY)	AS N)											
OCT 25...	0.24	247		<0.01		<0.05		0.02		0.18	0.20	0.02	<0.01	<0.01	
DEC 06...	0.13	204		<0.01		0.07		<0.02	--	<0.20	<0.01	<0.01	<0.01	<0.01	
APR 23...	0.22	1150		<0.01		0.15		<0.02	--	<0.20	0.01	<0.01	<0.01	<0.01	
JUN 11...	0.16	894		<0.01		0.07		<0.02		0.30	0.30	0.05	0.01	0.01	
JUL 18...	0.16	492		0.01		0.12		0.02		0.28	0.30	0.01	<0.01	0.02	
AUG 13...	0.21	369		0.01		0.17		0.02		0.28	0.30	0.01	<0.01	0.02	

K-Based on non-ideal colony count.

## 09058000 COLORADO RIVER NEAR KREMMLING, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	BERYL- BARIUM, DIS- SOLVED (UG/L AS BA)	LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
OCT 25...	37	<0.5	2	<5	<3	<10	100	<10
DEC 06...	30	<0.5	<1	<5	<3	<10	33	<10
APR 23...	37	<0.5	2	<5	<3	<10	54	<10
JUN 11...	29	<0.5	<1	<5	<3	<10	85	20
JUL 18...	34	<0.5	<1	<5	<3	<10	76	<10
AUG 13...	40	1	<1	<5	6	<10	41	<10
DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 25...	9	42	10	<10	1	240	<6	3
DEC 06...	4	13	20	<10	<1	120	<6	<3
APR 23...	6	25	30	<10	2	180	<6	11
JUN 11...	6	21	10	<10	<1	140	<6	6
JUL 18...	5	27	20	<10	<1	140	<6	5
AUG 13...	8	23	10	<10	<1	200	<6	10

**09058500 PINEY RIVER BELOW PINEY LAKE, NEAR MINTURN, CO**

LOCATION.--Lat 39°42'29", long 106°25'34", Eagle County, Hydrologic Unit 14010001, on left bank 1.4 mi upstream from Dickson Creek, 2.0 mi downstream from Piney Lake, and 8.5 mi north of Minturn.

DRAINAGE AREA.--13.0 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1947 to September 1954, October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 9,145.25 ft above sea level, levels by U.S. Bureau of Reclamation. Prior to October 1963, water-stage recorder at site 15 ft upstream at present datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. No diversions upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	9.0	e5.5	e2.5	e3.9	e4.6	e7.0	19	74	118	19	5.0
2	15	8.6	e5.0	e2.4	e3.8	e4.5	e7.0	19	81	105	18	5.0
3	14	10	e4.5	e2.8	e3.7	e4.6	e7.5	19	118	111	17	4.8
4	16	8.9	e4.0	e3.5	e3.7	e4.7	e8.0	21	170	108	17	4.7
5	15	8.7	e4.0	e3.5	e3.7	e4.5	e9.0	28	201	116	15	4.3
6	12	8.1	e4.2	e3.7	e3.8	e4.4	e9.5	33	223	115	13	5.7
7	13	6.3	e4.3	e3.7	e3.8	e4.3	e10	52	216	92	13	8.3
8	15	6.5	e4.0	e3.6	e3.7	e4.0	e10	67	214	88	12	6.5
9	13	6.5	e3.4	e3.7	e3.9	e4.1	e11	81	216	74	11	5.7
10	12	7.4	e2.8	e3.6	e3.7	e4.5	e12	82	197	69	9.8	4.7
11	12	7.3	e2.5	e3.5	e3.8	e5.0	e12	82	186	73	9.3	4.0
12	15	7.0	e3.5	e3.4	e3.7	e5.0	e13	100	176	65	9.0	4.4
13	19	6.8	e3.6	e3.4	e3.7	e5.4	e14	123	179	59	8.5	10
14	16	6.7	e4.0	e3.5	e3.7	e5.2	e14	156	186	57	8.2	11
15	15	6.6	e3.9	e3.5	e3.3	e5.0	e15	157	173	52	7.9	15
16	15	6.7	e3.8	e3.4	e3.5	e4.6	e16	173	179	48	8.0	15
17	14	6.8	e3.8	e3.4	e3.6	e4.2	e16	185	185	60	7.5	12
18	14	7.3	e3.8	e3.5	e4.0	e4.0	e16	191	195	58	7.3	12
19	12	7.6	e3.8	e3.0	e4.1	e3.9	e15	202	190	49	7.6	13
20	11	7.1	e3.6	e3.3	e4.1	e3.8	e14	199	188	44	7.1	11
21	11	7.2	e3.5	e3.0	e4.1	e3.8	e13	124	216	41	7.3	11
22	11	7.2	e3.5	e3.0	e4.3	e3.9	11	120	234	37	7.2	12
23	9.8	6.9	e3.5	e3.0	e4.4	e4.0	11	122	197	33	7.8	16
24	9.2	7.0	e3.7	e3.1	e4.7	e4.5	12	120	160	31	7.3	20
25	9.8	6.9	e3.8	e3.2	e4.8	e5.0	14	117	149	28	6.9	23
26	9.7	7.0	e3.7	e4.2	e4.8	e5.4	18	126	135	25	5.9	19
27	8.8	7.3	e3.5	e4.1	e4.7	e5.8	21	102	152	24	5.9	16
28	8.0	7.3	e3.4	e4.0	e4.6	e6.3	22	78	145	22	6.3	15
29	8.0	e6.5	e3.4	e4.0	e4.6	e6.6	20	68	119	22	6.0	18
30	8.0	e5.9	e3.5	e3.8	---	e6.5	19	68	128	22	5.4	19
31	8.1	---	e3.2	e4.0	---	e6.5	---	76	---	20	5.1	---
TOTAL	384.4	219.1	116.7	106.3	116.2	148.6	397.0	3110	5182	1866	296.3	331.1
MEAN	12.4	7.30	3.76	3.43	4.01	4.79	13.2	100	173	60.2	9.56	11.0
MAX	19	10	5.5	4.2	4.8	6.6	22	202	234	118	19	23
MIN	8.0	5.9	2.5	2.4	3.3	3.8	7.0	19	74	20	5.1	4.0
AC-FT	762	435	231	211	230	295	787	6170	10280	3700	588	657

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1996, BY WATER YEAR (WY)

MEAN	6.06	3.90	2.71	2.15	1.96	2.50	11.1	65.4	126	59.1	14.8	7.24
MAX	15.1	8.82	5.41	4.00	4.01	5.52	23.0	107	202	146	45.3	14.8
(WY)	1985	1985	1986	1952	1996	1995	1952	1984	1952	1995	1984	1984
MIN	1.71	1.23	1.04	.79	.83	.84	2.12	26.6	52.1	8.70	3.69	2.16
(WY)	1980	1980	1980	1975	1975	1975	1973	1968	1954	1977	1954	1974

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1948 - 1996

ANNUAL TOTAL	13060.8		12273.7									
ANNUAL MEAN	35.8		33.5									
HIGHEST ANNUAL MEAN										25.3		
LOWEST ANNUAL MEAN										41.2		1984
HIGHEST DAILY MEAN	261	Jun 14		234	Jun 22					12.9		1977
LOWEST DAILY MEAN	e1.4	Jan 2		e2.4	Jan 2					362	Jun 9	1985
ANNUAL SEVEN-DAY MINIMUM	2.1	Jan 19		3.0	Dec 28					.40	Oct 6	1975
INSTANTANEOUS PEAK FLOW				262	Jun 22					.62	Mar 28	1975
INSTANTANEOUS PEAK STAGE					4.50	Jun 22				560	Jun 8	1985
ANNUAL RUNOFF (AC-FT)	25910		24340							a5.12	Jun 8	1985
10 PERCENT EXCEEDS	130		122							18310		
50 PERCENT EXCEEDS	9.0		8.1							87		
90 PERCENT EXCEEDS	2.7		3.6							4.7		
										1.5		

e-Estimated.

a-Maximum gage height for period of record, 6.44 ft, Apr 13, 1977.

## 09058610 DICKSON CREEK NEAR VAIL, CO

LOCATION.--Lat 39°42'14", long 106°27'25", Eagle County, Hydrologic Unit 14010001, on right bank 0.6 mi upstream from Freeman Creek, 1.0 mi upstream from mouth, and 6 mi northwest of Vail.

DRAINAGE AREA.--3.41 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1971 to current year. Prior to October 1972, published as "near Minturn."

GAGE.--Water-stage recorder. Elevation of gage is 9,245 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversion by Willy N. ditch 75 ft upstream for irrigation of hay meadows downstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	2.3	e1.8	e1.6	e1.7	e1.2	e1.2	3.8	21	8.1	3.6	2.1
2	2.4	2.1	e1.8	e1.5	e1.6	e1.1	e1.1	4.1	22	7.9	3.6	2.1
3	2.3	2.0	e1.8	e1.5	e1.6	e1.2	e1.1	4.4	22	7.6	3.6	2.1
4	2.5	2.1	e1.8	e1.6	e1.6	e1.2	e1.1	5.8	23	7.1	3.6	2.0
5	2.4	2.0	e1.8	e1.7	e1.6	e1.2	e1.1	8.0	26	6.9	3.4	2.1
6	2.3	2.0	e1.8	e1.7	e1.6	e1.2	e1.1	10	28	6.6	3.3	2.6
7	2.4	2.0	e1.7	e1.8	e1.6	e1.1	e1.0	11	29	6.3	3.3	2.3
8	2.4	2.0	e1.7	e1.8	e1.6	e1.1	e1.1	14	28	6.1	3.3	2.1
9	2.3	2.0	e1.7	e1.7	e1.6	e1.1	e1.1	15	27	6.1	3.2	2.0
10	2.4	2.1	e1.7	e1.7	e1.6	e1.1	e1.1	15	28	6.0	3.0	2.0
11	2.3	2.1	e1.7	e1.6	e1.6	e1.0	e1.2	16	27	5.7	3.0	2.0
12	2.4	2.0	e1.7	e1.6	e1.7	e.90	e1.2	19	26	5.5	2.9	2.1
13	2.7	2.0	e1.7	e1.6	e1.6	e1.0	e1.2	21	25	5.4	2.8	2.4
14	2.3	2.0	e1.7	e1.6	e1.5	e1.0	e1.3	24	24	5.2	2.8	2.2
15	2.3	2.0	e1.6	e1.6	e1.5	e1.1	e1.3	26	23	5.1	2.8	2.6
16	2.2	2.0	e1.5	e1.5	e1.5	e1.0	e1.3	30	25	5.1	2.8	2.0
17	2.2	2.0	e1.7	e1.5	e1.4	e1.1	e1.2	35	21	5.8	2.7	2.0
18	2.1	1.9	e1.5	e1.5	e1.4	e1.1	e1.3	34	20	5.1	2.8	2.1
19	2.0	1.9	e1.4	e1.5	e1.4	e1.0	e1.0	36	18	5.0	2.7	2.2
20	1.9	1.9	e1.5	e1.5	e1.3	e1.0	e1.4	32	17	4.7	2.6	2.1
21	2.0	1.9	e1.6	e1.6	e1.3	e1.1	e1.5	28	17	4.5	2.6	2.1
22	2.2	1.9	e1.5	e1.7	e1.3	e1.1	e1.6	27	16	4.3	2.6	2.1
23	2.1	1.9	e1.4	e1.8	e1.3	e1.1	e1.7	26	14	4.3	2.5	2.0
24	2.0	1.8	e1.2	e1.8	e1.2	e1.0	e1.8	25	13	4.2	2.5	2.6
25	2.0	1.9	e1.3	e1.7	e1.2	e1.1	e1.9	25	12	4.0	2.4	2.0
26	2.0	1.9	e1.3	e1.7	e1.2	e1.1	e2.0	25	11	3.9	2.4	2.0
27	2.0	e1.8	e1.4	e1.8	e1.2	e1.2	e2.5	22	10	3.8	2.4	1.9
28	2.0	e1.8	e1.5	e1.7	e1.2	e1.2	e3.5	20	10	3.8	2.4	1.9
29	2.0	e1.8	e1.6	e1.7	e1.2	e1.2	e3.6	19	9.1	3.9	2.3	1.9
30	2.1	e1.8	e1.7	e1.8	---	e1.2	e3.4	20	8.6	4.0	2.2	1.8
31	2.1	---	e1.6	e1.7	---	e1.2	---	21	---	3.8	2.2	---
TOTAL	68.9	58.9	49.7	51.1	42.1	34.20	46.9	622.1	600.7	165.8	88.3	63.4
MEAN	2.22	1.96	1.60	1.65	1.45	1.10	1.56	20.1	20.0	5.35	2.85	2.11
MAX	2.7	2.3	1.8	1.8	1.7	1.2	3.6	36	29	8.1	3.6	2.6
MIN	1.9	1.8	1.2	1.5	1.2	.90	1.0	3.8	8.6	3.8	2.2	1.8
AC-FT	137	117	99	101	84	68	93	1230	1190	329	175	126

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1996, BY WATER YEAR (WY)

MEAN	1.14	.97	.80	.71	.68	.76	1.48	7.03	10.4	3.40	1.59	1.32
MAX	2.22	1.96	1.60	1.65	1.45	1.23	6.10	20.1	23.6	12.0	3.83	2.81
(WY)	1996	1996	1996	1996	1996	1985	1979	1996	1995	1995	1995	1995
MIN	.007	.002	.000	.000	.000	.000	1.22	.91	.73	.17	.042	.042
(WY)	1984	1984	1984	1984	1984	1984	1984	1977	1977	1977	1982	1972

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1972 - 1996
ANNUAL TOTAL	1718.58	1892.10	
ANNUAL MEAN	4.71	5.17	2.52
HIGHEST ANNUAL MEAN			5.17
LOWEST ANNUAL MEAN			.58
HIGHEST DAILY MEAN	33	May 19	1996
LOWEST DAILY MEAN	e .66	Jan 23	1977
ANNUAL SEVEN-DAY MINIMUM	.73	Mar 27	
INSTANTANEOUS PEAK FLOW			
INSTANTANEOUS PEAK STAGE		3.28 May 19	1979
ANNUAL RUNOFF (AC-FT)	3410	3750	1830
10 PERCENT EXCEEDS	17	19	6.0
50 PERCENT EXCEEDS	2.0	2.0	1.1
90 PERCENT EXCEEDS	.78	1.2	.47

e-Estimated.

a-No flow at times some years.

b-Maximum gage height, 4.89 ft, May 9, 1984, backwater from ice.

## PINEY RIVER BASIN

## 09058700 FREEMAN CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°41'54", long 106°26'42", Eagle County, Hydrologic Unit 14010001, on right bank 0.8 mi upstream from mouth and 7.5 mi north of Minturn.

DRAINAGE AREA.--2.94 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 9,335 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. No regulation or diversion upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.65	e.40	e.22	e.18	e.18	e.22	e.24	e2.3	14	1.9	.54	.18
2	.61	e.38	e.20	e.16	e.18	e.24	e.30	e2.5	13	1.8	.52	.18
3	.46	e.38	e.20	e.16	e.20	e.24	e.35	e2.5	13	1.7	.52	.18
4	.59	e.38	e.20	e.18	e.20	e.24	e.34	e2.6	14	1.6	.52	.19
5	.47	e.36	e.22	e.18	e.20	e.24	e.33	e2.7	14	1.6	.48	.24
6	.42	e.34	e.22	e.18	e.18	e.22	e.36	e2.9	14	1.4	.43	.44
7	.55	e.34	e.24	e.16	e.18	e.22	e.40	e3.2	13	1.4	.44	.45
8	.69	e.36	e.24	e.15	e.16	e.24	e.45	e3.5	12	1.3	.46	.30
9	.59	e.36	e.22	e.16	e.16	e.24	e.50	e3.7	11	1.3	.45	.25
10	.61	e.36	e.22	e.18	e.18	e.24	e.62	e3.9	9.9	1.2	.41	.24
11	.55	e.36	e.20	e.18	e.20	e.24	e.80	e4.0	8.8	1.1	.37	.26
12	.53	e.36	e.20	e.18	e.20	e.24	e.92	e4.5	7.9	.94	.36	.34
13	.80	e.36	e.20	e.18	e.20	e.24	e.82	e5.0	7.1	.90	.36	.59
14	.65	e.36	e.22	e.18	e.20	e.22	e.70	e6.5	7.1	.87	.37	.43
15	.56	e.34	e.22	e.20	e.20	e.22	e.62	e8.0	8.0	.83	.36	.46
16	.47	e.32	e.20	e.20	e.24	e.66	e9.0	6.3	.88	.37	.20	
17	.42	e.32	e.20	e.20	e.22	e.74	e10	5.3	1.3	.31	.18	
18	.37	e.32	e.22	e.20	e.22	e.24	e.80	e10	4.7	1.2	.32	.26
19	.33	e.30	e.24	e.18	e.22	e.24	e.66	e12	4.4	1.1	.33	.37
20	.28	e.30	e.24	e.18	e.22	e.24	e.68	e11	4.5	.97	.31	.39
21	.28	e.28	e.22	e.18	e.20	e.26	e.76	e10	4.4	.89	.28	.39
22	.36	e.26	e.22	e.20	e.20	e.26	e.92	e10	3.8	.81	.28	.39
23	.46	e.26	e.22	e.20	e.22	e.26	e1.2	e9.0	3.4	.78	.28	.40
24	.46	e.26	e.22	e.20	e.22	e.24	e1.3	e9.0	3.0	.74	.27	.49
25	.43	e.26	e.22	e.20	e.22	e.24	e1.5	e9.0	2.8	.69	.21	.22
26	.34	e.24	e.20	e.22	e.20	e.24	e1.8	e10	2.6	.65	.23	.20
27	.33	e.24	e.20	e.22	e.20	e.24	e2.0	e13	2.6	.60	.27	.20
28	.32	e.24	e.20	e.22	e.22	e.24	e2.2	e14	2.6	.58	.27	.31
29	.38	e.24	e.20	e.22	e.22	e.26	e2.3	e15	2.2	.71	.25	.37
30	.39	e.22	e.18	e.20	---	e.26	e2.4	13	2.0	.76	.18	.36
31	.40	---	e.18	e.20	---	e.24	---	13	---	.59	.18	---
TOTAL	14.75	9.50	6.58	5.83	5.80	7.44	27.67	234.8	221.4	33.09	10.93	9.46
MEAN	.48	.32	.21	.19	.20	.24	.92	7.57	7.38	1.07	.35	.32
MAX	.80	.40	.24	.22	.22	.26	2.4	15	14	1.9	.54	.59
MIN	.28	.22	.18	.15	.16	.22	.24	2.3	2.0	.58	.18	.18
AC-FT	29	19	13	12	12	15	55	466	439	66	22	19

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1996, BY WATER YEAR (WY)

MEAN	.26	.17	.12	.096	.088	.13	.64	6.58	6.73	.99	.33	.26
MAX	.78	.45	.26	.24	.21	.29	1.73	18.0	23.2	3.50	1.25	.70
(WY)	1985	1985	1983	1983	1983	1986	1971	1984	1983	1995	1983	1984
MIN	.083	.030	.000	.000	.000	.000	1.26	.30	.30	.15	.065	.079
(WY)	1993	1965	1965	1965	1991	1991	1977	1977	1977	1981	1981	1977

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1965 - 1996
ANNUAL TOTAL	946.74	587.25	
ANNUAL MEAN	2.59	1.60	1.37
HIGHEST ANNUAL MEAN			3.54
LOWEST ANNUAL MEAN			.31
HIGHEST DAILY MEAN	37	Jun 5	e15 May 29
LOWEST DAILY MEAN	a.10	Jan 2	e.15 Jan 8
ANNUAL SEVEN-DAY MINIMUM	.10	Jan 11	c.17 Jan 2
INSTANTANEOUS PEAK FLOW			c.16 Jun 5
INSTANTANEOUS PEAK STAGE		2.22 Jun 5	d.2.21 May 25 1984
ANNUAL RUNOFF (AC-FT)	1880	1160	993
10 PERCENT EXCEEDS	6.7	4.8	3.4
50 PERCENT EXCEEDS	.27	.36	.20
90 PERCENT EXCEEDS	.11	.20	.05

e-Estimated.

a-Also occurred Jan 4,6-8,11-20,24, and Feb 1-3,15-16.

b-No flow some days some years.

c-May have been higher during period of no gage-height record Nov 1 to May 29.

d-Maximum gage height, 3.51 ft, May 18, 1973, backwater from ice.

## 09058800 EAST MEADOW CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°43'54", long 106°25'34", Eagle County, Hydrologic Unit 14010001, on left bank 1.4 mi upstream from mouth and 10 mi north of Minturn.

DRAINAGE AREA.--3.61 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 9,455 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. No regulation or diversion upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	.82	e.82	e.72	e.90	e1.0	e.78	1.4	17	15	2.6	.77
2	3.1	e.84	e.80	e.68	e.96	e1.0	e.88	1.5	19	15	2.4	.76
3	3.1	e.86	e.80	e.76	e1.0	e.98	e.86	1.7	23	14	2.4	.74
4	3.0	e.86	e.82	e.84	e.98	e.96	e.88	2.8	26	13	2.4	.73
5	2.9	e.84	e.88	e.86	e1.0	e.94	e.90	4.9	30	12	2.2	.81
6	2.7	e.84	e.88	e.88	e.98	e.96	e.90	6.5	33	11	2.1	1.8
7	2.4	e.86	e.84	e.88	e.98	e1.0	e.86	7.7	33	10	2.0	1.5
8	2.7	e.88	e.80	e.88	e.98	e1.0	e.84	9.9	33	9.3	1.9	.99
9	2.6	e.90	e.74	e.86	e.96	e1.0	e.80	11	34	8.8	1.9	.84
10	2.6	e.94	e.76	e.86	e.96	e1.0	e.82	10	32	8.5	1.7	.79
11	3.1	e.94	e.78	e.86	e.96	e.98	e.84	12	30	7.5	1.7	.78
12	3.7	e.88	e.78	e.86	e.94	e.98	e.86	14	29	6.7	1.5	.95
13	3.6	e.90	e.76	e.86	e.90	e.96	e.84	17	30	6.2	1.5	1.9
14	3.1	e.94	e.78	e.84	e.90	e.98	.88	18	28	5.8	1.4	1.3
15	3.0	e1.0	e.72	e.82	e.96	e1.0	.82	20	35	5.6	1.5	2.4
16	3.1	e.96	e.75	e.82	e.94	e1.0	.91	26	32	5.5	1.4	1.3
17	2.8	e.92	e.74	e.86	e.94	e1.0	1.0	28	30	7.5	1.3	1.3
18	2.8	e.88	e.68	e.88	e.96	e1.1	1.0	28	29	6.2	1.3	1.5
19	2.6	e.84	e.66	e.86	e.98	e1.1	.94	31	27	5.4	1.3	1.6
20	e2.5	e.84	e.68	e.86	e1.0	e1.1	.87	25	26	4.6	1.3	1.7
21	e2.0	e.80	e.70	e.84	e1.0	e1.1	.82	23	27	4.2	1.2	1.9
22	e1.8	e.76	e.64	e.80	e1.0	e1.0	.75	23	26	3.9	1.2	2.1
23	e1.6	e.74	e.56	e.82	e1.1	e1.0	.86	22	22	3.6	1.2	1.9
24	e1.4	e.78	e.60	e.88	e1.1	e1.0	e1.3	20	20	3.4	1.1	2.1
25	e1.2	e.82	e.64	e.94	e1.2	e.98	e1.4	22	19	3.3	1.0	1.7
26	e1.0	e.84	e.66	e.98	e1.2	e.94	e1.3	19	18	3.2	1.0	1.7
27	e.80	e.80	e.68	e.98	e1.2	e.90	e1.2	17	18	3.1	1.0	1.5
28	e.70	e.82	e.70	e.94	e1.1	e.86	e1.3	16	18	2.9	1.0	1.9
29	e.70	e.84	e.72	e.90	e1.0	e.82	1.4	17	16	3.2	.91	2.2
30	e.70	e.86	e.74	e.88	---	e.78	1.4	16	16	3.2	.85	2.0
31	.62	---	e.74	e.84	---	e.76	---	18	---	2.8	.82	---
TOTAL	71.22	25.80	22.85	26.54	29.08	30.18	29.21	489.4	776	214.4	47.08	43.46
MEAN	2.30	.86	.74	.86	1.00	.97	.97	15.8	25.9	6.92	1.52	1.45
MAX	3.7	1.0	.88	.98	1.2	1.1	1.4	31	35	15	2.6	2.4
MIN	.62	.74	.56	.68	.90	.76	.75	1.4	16	2.8	.82	.73
AC-FT	141	51	45	53	58	60	58	971	1540	425	93	86

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1996, BY WATER YEAR (WY)

MEAN	1.31	.96	.78	.68	.65	.73	1.62	10.9	22.8	8.53	2.22	1.40
MAX	2.78	2.00	1.50	1.11	1.04	1.16	3.75	26.3	45.7	28.8	5.85	3.09
(WY)	1966	1966	1966	1983	1983	1983	1987	1986	1983	1983	1965	1984
MIN	.73	.55	.44	.35	.40	.40	.66	2.97	7.55	1.28	.68	.75
(WY)	1978	1979	1979	1979	1965	1965	1975	1975	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1965 - 1996
ANNUAL TOTAL	2440.86	1805.22	
ANNUAL MEAN	6.69	4.93	4.38
HIGHEST ANNUAL MEAN			8.05
LOWEST ANNUAL MEAN			1.83
HIGHEST DAILY MEAN	75	Jun 18	81 Jun 20 1983
LOWEST DAILY MEAN	e.56	Dec 23	.32 Jan 7 1979
ANNUAL SEVEN-DAY MINIMUM	.64	Dec 19	.33 Jan 6 1979
INSTANTANEOUS PEAK FLOW		47 Jun 15	107 Jun 17 1995
INSTANTANEOUS PEAK STAGE		1.58 Jun 15	a1.86 Jun 17 1995
ANNUAL RUNOFF (AC-FT)	4840	3580	3170
10 PERCENT EXCEEDS	27	18	15
50 PERCENT EXCEEDS	1.1	1.0	1.1
90 PERCENT EXCEEDS	.79	.78	.58

e-Estimated.

a-Maximum gage height, 2.22 ft, May 12, 1970, backwater from ice.

## PINEY RIVER BASIN

## 09059500 PINEY RIVER NEAR STATE BRIDGE, CO

LOCATION.--Lat 39°48'00", long 106°35'00", in SW<sup>1/4</sup>NE<sup>1/4</sup> sec.16, T.3 S., R.82 W., Eagle County, Hydrologic Unit 14010001, on left bank at old bridge crossing (revised), 1.2 mi downstream from Rock Creek and 6.0 mi southeast of State Bridge.

DRAINAGE AREA.--86.2 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1944 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 7,272.35 ft above sea level. Prior to July 29, 1944, nonrecording gage, and July 29, 1944, to Oct. 24, 1947, water-stage recorder, at datum 2.38 ft, higher.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 400 acres of hay meadows upstream and downstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	30	21	e11	13	18	39	132	368	239	48	18
2	34	25	22	e11	15	18	47	139	378	220	e49	18
3	31	e22	23	e12	14	18	47	153	431	223	e50	18
4	36	e20	21	e12	14	17	42	169	506	209	e45	17
5	35	e22	20	e11	14	16	37	e190	567	214	e40	17
6	30	e23	19	e11	13	18	e37	e220	614	212	e37	26
7	31	24	22	e11	13	18	e41	e250	596	181	e36	30
8	33	22	19	e12	13	17	e50	e270	574	170	35	23
9	30	21	20	e11	14	17	e70	e290	577	154	34	21
10	29	21	18	11	15	18	e100	e285	538	144	32	19
11	29	e19	19	12	14	19	e130	e310	506	141	31	19
12	34	e21	17	11	14	22	e110	e350	477	128	29	20
13	42	22	e17	11	15	20	e94	e400	475	118	28	31
14	34	23	e18	11	15	20	e80	e435	478	112	27	31
15	32	22	e15	10	15	20	e88	e475	491	105	26	42
16	30	22	e14	11	15	22	e96	e520	473	103	25	36
17	29	21	e15	e11	16	21	e100	e580	445	123	23	31
18	28	21	e13	e11	17	20	94	e560	445	118	22	33
19	26	e21	e11	e12	16	e19	86	e570	425	102	23	38
20	22	e21	e10	e12	17	20	77	e580	417	88	21	35
21	23	e20	e11	e12	23	21	73	e520	445	82	21	34
22	25	20	e12	e13	35	26	68	e460	457	75	21	34
23	25	19	e10	e13	19	30	71	e470	405	68	21	37
24	32	19	e8.6	e13	21	27	107	e450	347	64	21	46
25	29	20	e9.0	13	18	e25	141	e450	328	62	21	49
26	25	19	e9.6	13	17	e23	136	e470	301	59	20	48
27	23	19	e10	13	17	24	147	e420	308	56	22	41
28	22	e18	e11	13	17	26	134	e380	302	54	22	39
29	21	e21	e11	13	19	29	126	e360	260	57	21	43
30	23	21	e12	13	---	33	126	359	256	58	19	42
31	24	---	e12	13	---	34	---	371	---	52	19	---
TOTAL	904	639	470.2	367	478	676	2594	11588	13190	3791	889	936
MEAN	29.2	21.3	15.2	11.8	16.5	21.8	86.5	374	440	122	28.7	31.2
MAX	42	30	23	13	35	34	147	580	614	239	50	49
MIN	21	18	8.6	10	13	16	37	132	256	52	19	17
AC-FT	1790	1270	933	728	948	1340	5150	22980	26160	7520	1760	1860

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1996, BY WATER YEAR (WY)

MEAN	19.4	17.4	14.9	13.4	13.0	15.3	53.1	257	345	113	31.5	17.8
MAX	62.9	34.1	24.6	20.0	24.5	35.3	167	495	656	379	94.9	46.1
(WY)	1962	1985	1985	1966	1986	1986	1962	1958	1957	1983	1983	1984
MIN	6.72	8.68	7.19	7.44	7.86	9.18	16.8	99.0	74.1	14.8	6.22	4.00
(WY)	1978	1980	1980	1980	1980	1980	1961	1977	1954	1977	1954	1944

## SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1944 - 1996

ANNUAL TOTAL	38036.0	36522.2		
ANNUAL MEAN	104	99.8	76.0	
HIGHEST ANNUAL MEAN			127	1984
LOWEST ANNUAL MEAN			27.2	1977
HIGHEST DAILY MEAN	a880	Jun 14	1300	May 25 1984
LOWEST DAILY MEAN	e7.6	Jan 23	b1.9	Sep 1 1954
ANNUAL SEVEN-DAY MINIMUM	9.0	Jan 18	2.3	Sep 17 1954
INSTANTANEOUS PEAK FLOW		709 Jun 6	c,d1300	May 25 1984
INSTANTANEOUS PEAK STAGE		f5.13 Jun 6		
ANNUAL RUNOFF (AC-FT)	75440	72440	55080	
10 PERCENT EXCEEDS	390	386	257	
50 PERCENT EXCEEDS	25	26	19	
90 PERCENT EXCEEDS	11	13	10	

e-Estimated.

a-Estimated during period of indefinite stage-discharge relationship, Jun 3 to Sep 11.

b-Also occurred Sep 18-19, 1954.

c-Maximum daily discharge for period of record.

d-Maximum discharge and stage, (recorded), 1220 ft<sup>3</sup>/s, Jun 27, 1983, gage height 5.82 ft, from peak stage indicator, but may have been higher May 25, 1984.

f-Maximum gage height, 5.66 ft, from high-water mark, backwater from debris, during period of no gage-height record, May 5-29.

**09059500 PINEY RIVER NEAR STATE BRIDGE, CO--Continued**

## **WATER-QUALITY RECORDS**

PERIOD OF RECORD.--October 1993 to September 1996 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

	DIS-	SPE-		COLI-	E. COLI	
CHARGE,	CIFIC			FORM,	WATER	
INST.				FECAL,	WHOLE	
CUBIC	CON-	pH	TEMPER-	OXYGEN,	0.7	
FEET	DUCT-	( STAND-	ATURE	DIS-	TOTAL	
DATE	TIME	PER	ANCE	ARD	DIS-	DIS-
		SECOND	(US/CM)	WATER	UM-MF	SOLVED
			UNITS)	SOLVED	(COLS. /	(COL /
			(DEG C)	(MG/L)	100 ML)	(UG/L)
					100 ML)	AS CD)

OCT 18...	1350	29	267	8.1	6.5	9.6	K5	K4	<1
MAR 20...	0940	11	346	8.3	0.0	10.9	<1	<1	<1
JUN 12...	0955	471	119	8.4	5.5	10.0	K13	K17	<1
AUG 21...	1045	23	327	8.7	13.5	8.7	K18	K5	<1

		IRON, COPPER, DIS- SOLVED DATE	TOTAL, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, DIS- ERABLE (UG/L AS FE)	MANGA- NESE, RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS MN)	SELE- NIUM, DIS- SOLVED (UG/L AS HG)	SILVER, DIS- SOLVED (UG/L AS SE)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 18...	<1	100	<1	20	<10	<0.1	<1	<0.2	<10	
MAR 20...	<1	100	<1	20	10	<0.1	<1	<0.2	<10	
JUN 12...	<1	170	<1	10	3	<0.1	<1	<0.2	<3	
AUG 21...	<1	60	<1	<10	5	<0.1	<1	<0.2	<3	

K-Based on non-ideal colony count.

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

		DIS- CHARGE , INST . CUBIC FEET	SPE- CIFIC CON- DUCT-	TEMPER- ATURE WATER (DEG C)		DIS- CHARGE , INST . CUBIC FEET	SPE- CIFIC CON- DUCT-	TEMPER- ATURE WATER (DEG C)	
DATE	TIME	PER SECOND	(US/CM)		DATE	TIME	PER SECOND	(US/CM)	
OCT 17...	0920	30	263	2.5	APR 17...	1045	90	270	3.5
NOV 29...	0910	25	--	0.0	JUN 25...	1206	322	99	9.5
MAR 07...	0930	20	366	0.0					

## ROCK CREEK BASIN

## 09060550 ROCK CREEK AT CRATER, CO

LOCATION.--Lat 39°58'42", long 106°42'34", in NW<sup>1/4</sup>NE<sup>1/4</sup> sec. 17, T.1 S., R.83 W., Routt County, Hydrologic Unit 14010001, on right bank 250 ft downstream from county bridge crossing, 2 mi downstream from Kayser Mutual Ditch diversion, and 0.8 mi northwest of Crater.

DRAINAGE AREA.--72.6 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1984 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 7,185 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges and those above 464 ft<sup>3</sup>/s, which are poor. Diversions for irrigation of approximately 1,025 acres upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	23	13	8.3	9.4	9.9	16	122	180	15	3.6	2.7
2	3.4	11	12	8.4	9.1	9.7	18	134	171	13	3.5	2.6
3	2.6	9.3	12	8.7	9.2	9.9	19	143	169	14	6.0	2.6
4	3.2	11	12	8.9	9.3	10	20	184	174	16	3.7	2.7
5	3.6	12	11	9.1	9.3	10	21	234	172	13	3.3	2.6
6	3.0	14	11	9.1	9.4	10	22	258	170	26	3.1	2.7
7	4.1	13	11	9.0	9.4	9.9	25	260	147	28	3.1	2.6
8	5.7	12	10	9.0	9.3	9.9	33	284	136	15	3.1	2.4
9	4.5	12	9.9	9.0	9.3	9.9	47	295	129	11	3.1	2.2
10	13	9.7	9.6	9.0	9.3	10	62	266	123	6.9	3.0	2.2
11	22	12	9.3	9.0	9.2	11	65	279	108	6.3	2.9	2.2
12	27	14	9.4	9.0	8.9	11	51	315	98	6.2	2.8	2.4
13	30	17	9.8	9.0	8.8	11	38	334	88	6.2	2.8	4.9
14	20	19	9.7	8.9	8.8	11	19	390	82	6.0	2.8	3.3
15	18	e15	9.2	8.8	8.9	11	e19	419	84	6.1	2.8	2.6
16	16	e14	8.9	8.9	9.0	11	e23	403	82	6.2	2.8	2.3
17	14	e13	8.3	9.3	9.1	11	e31	499	67	11	2.7	2.4
18	13	e12	7.4	9.2	9.2	11	e41	494	58	6.1	2.8	2.4
19	13	e11	7.4	9.3	9.3	11	e40	382	49	9.9	2.9	2.4
20	11	e10	8.1	9.3	9.3	11	e35	324	41	7.4	2.8	2.4
21	12	e9.0	8.8	9.3	9.4	11	e34	288	45	6.8	2.7	2.5
22	15	e10	8.4	9.3	9.4	12	e31	296	64	6.3	2.8	2.5
23	12	e11	8.1	9.2	8.9	13	e36	307	41	6.0	2.8	2.3
24	14	e10	8.1	9.1	8.9	13	65	299	33	5.9	2.6	2.6
25	16	e10	7.9	9.1	9.2	13	106	300	25	5.8	2.6	2.6
26	18	e12	7.7	8.9	9.6	13	113	288	22	6.1	2.7	2.5
27	17	e11	7.5	8.9	9.9	13	133	267	24	5.4	2.8	2.5
28	15	e11	7.3	9.0	10	12	126	237	24	4.2	2.9	2.4
29	16	e13	7.3	8.9	9.8	13	92	215	20	4.2	2.9	2.4
30	18	12	7.7	9.1	--	14	90	195	17	4.1	2.8	2.4
31	19	---	8.1	9.3	--	14	--	177	--	3.8	2.7	--
TOTAL	405.0	373.0	285.9	279.3	268.6	350.2	1471	8888	2643	287.9	93.9	77.3
MEAN	13.1	12.4	9.22	9.01	9.26	11.3	49.0	287	88.1	9.29	3.03	2.58
MAX	30	23	13	9.3	10	14	133	499	180	28	6.0	4.9
MIN	2.6	9.0	7.3	8.3	8.8	9.7	16	122	17	3.8	2.6	2.2
AC-FT	803	740	567	554	533	695	2920	17630	5240	571	186	153

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1996, BY WATER YEAR (WY)

MEAN	8.73	11.0	9.81	9.38	9.36	12.0	53.4	165	71.2	11.0	4.80	4.69
MAX	20.4	16.9	14.1	13.9	12.8	20.0	95.1	287	190	26.6	11.7	15.5
(WY)	1987	1987	1985	1985	1985	1986	1986	1996	1995	1995	1986	1986
MIN	1.60	7.12	6.36	5.67	6.81	8.77	16.4	73.2	12.3	2.18	1.55	1.81
(WY)	1993	1995	1995	1995	1995	1991	1993	1990	1994	1992	1990	1992

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1985 - 1996
ANNUAL TOTAL	12603.9	15423.1	
ANNUAL MEAN	34.5	42.1	31.0
HIGHEST ANNUAL MEAN			50.2
LOWEST ANNUAL MEAN			17.8
HIGHEST DAILY MEAN	282	Jun 7	May 17 1996
LOWEST DAILY MEAN	a1.6	Sep 4	b2.2 Sep 9 1.2 Aug 15 1990
ANNUAL SEVEN-DAY MINIMUM	1.7	Aug 31	2.4 Sep 6 1.3 Aug 25 1990
INSTANTANEOUS PEAK FLOW			746 May 18 1996
INSTANTANEOUS PEAK STAGE			4.67 May 18 1996
ANNUAL RUNOFF (AC-FT)	25000	30590	22440
10 PERCENT EXCEEDS	150	138	92
50 PERCENT EXCEEDS	10	10	9.7
90 PERCENT EXCEEDS	2.3	2.8	2.7

e-Estimated.

a-Also occurred Sep 5-6, and 16-17.

b-Also occurred Sep 10, 11.

**09060550 ROCK CREEK AT CRATER, CO--Continued**  
**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--December 1984 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1986 to September 1987.

WATER TEMPERATURES: April 1986 to September 1987.

INSTRUMENTATION.--Water-quality monitor April 1986 to September 1987.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office. Water-quality monitor was not operated during winter.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 187 microsiemens Aug. 28, 1986; minimum, 46 microsiemens several days during May and June 1986.

WATER TEMPERATURE: Maximum, 18.9°C July 26, 1987; minimum, 0.0°C many days during winter months.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
OCT 18...	0925	13	128	8.2	3.5	10.6	55	16	3.6	3.3	0.2
MAR 20...	1320	12	138	8.0	1.5	14.1	58	17	3.8	3.6	0.2
JUN 12...	1400	96	62	7.9	13.0	8.4	26	7.5	1.7	2.2	0.2
AUG 21...	1430	2.8	177	8.1	14.5	8.5	83	25	4.9	4.5	0.2
<hr/>											
DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	
OCT 18...	0.8	55	7.8	0.7	0.1	12	80	77	0.11	2.81	
MAR 20...	0.8	61	7.7	0.6	0.1	15	--	86	0.12	2.78	
JUN 12...	0.5	28	3.0	0.2	<0.1	11	--	43	0.06	11.1	
AUG 21...	1.2	79	11	0.6	0.2	9.4	--	105	0.14	0.79	
<hr/>											
DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA + ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)			
OCT 18...	<0.01	<0.05	<0.015	<0.2	0.02	0.01	3.7	2.8			
MAR 20...	<0.01	0.10	<0.015	<0.2	0.01	0.01	2.4	1.8			
JUN 12...	0.01	<0.05	<0.015	<0.2	0.01	0.01	7.8	5.9			
AUG 21...	<0.01	0.08	<0.015	<0.2	<0.01	<0.01	2.6	1.8			

## ROCK CREEK BASIN

**09060550 ROCK CREEK AT CRATER, CO--Continued**

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS BE)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CD)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CO)	IRON, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)
OCT 18...	--	--	--	--	--	--	--	--	150
JUN 12...	150	<1	<100	<10	<1	<1	<1	1	370
DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
OCT 18...	--	--	1	--	--	--	--	--	--
JUN 12...	<1	20	--	<0.10	1	1	<1	<1	<10

## MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
OCT 17...	--	14	124	3.5	APR 18...	1053	41	118	1.0
NOV 29...	1305	13	131	0.0	MAY 16...	1228	337	300	8.0
FEB 07...	1150	9.4	134	1.0	JUN 26...	0901	21	91	12.0
MAR 06...	1345	10	136	1.0	AUG 13...	0916	2.7	161	10.5

## 09060770 ROCK CREEK AT McCOY, CO

LOCATION.--Lat 39°54'44", long 106°43'30", in SE<sup>1/4</sup>NE<sup>1/4</sup> sec.6, T.2 S., R.83 W., Eagle County, Hydrologic Unit 14010001, on right bank 1,900 ft downstream from bridge on State Highway 131, and 0.25 mi south of McCoy.

DRAINAGE AREA.--198 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1982 to September 1983 (measurements only), October 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,660 ft above sea level, from topographic map. Prior to Oct. 1, 1989, at datum 1.0 ft, higher.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Diversions for irrigation of approximately 5,000 acres upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	37	30	e18	e22	e23	e43	223	172	23	11	25
2	31	32	32	e19	e21	e23	e47	249	161	19	11	22
3	24	27	29	e20	e21	e23	e49	274	154	19	12	22
4	20	26	27	e20	e21	e23	e50	326	151	19	11	20
5	20	29	29	e21	e22	e23	e58	432	141	17	10	18
6	21	33	29	e21	e22	24	e70	527	137	31	9.9	22
7	21	31	25	e21	e22	24	e96	575	118	36	11	30
8	25	33	e23	e21	e22	23	e125	602	109	22	13	24
9	24	36	e23	e21	e22	23	e170	622	104	16	12	20
10	22	32	e22	e21	e22	24	e230	584	101	15	13	16
11	29	29	e22	e21	e21	26	e250	506	92	14	12	19
12	33	38	e22	e21	e21	26	e200	527	85	14	12	15
13	37	43	e23	e21	e20	25	e130	569	80	11	12	19
14	38	52	e22	e20	e20	25	e84	596	74	11	13	26
15	34	51	e22	e20	e20	26	e98	578	73	14	15	21
16	34	45	e21	e20	e21	26	e130	624	71	14	16	19
17	33	45	e20	e21	e21	26	161	736	68	23	19	17
18	30	40	e19	e22	e21	26	152	656	60	23	20	17
19	30	36	e18	e22	e22	27	132	510	59	26	23	21
20	29	36	e19	e22	e22	26	114	408	66	21	27	20
21	30	33	e20	e22	e21	29	115	341	54	19	24	19
22	33	34	e19	e22	e21	31	112	300	67	18	24	18
23	29	33	e19	e22	e20	30	119	276	57	15	24	17
24	30	29	e18	e21	e20	34	193	269	48	13	23	21
25	35	28	e18	e21	e21	38	281	260	38	12	22	23
26	38	31	e18	e21	e22	44	239	310	35	13	19	22
27	37	25	e17	e21	e23	44	255	282	38	16	22	21
28	33	26	e17	e21	e23	38	236	247	40	17	23	21
29	33	29	e18	e21	e23	39	186	245	31	18	30	20
30	35	30	e18	e21	--	42	185	209	25	19	25	18
31	35	--	e18	e22	--	45	--	181	--	14	24	--
TOTAL	946	1029	677	648	620	906	4310	13044	2509	562	542.9	613
MEAN	30.5	34.3	21.8	20.9	21.4	29.2	144	421	83.6	18.1	17.5	20.4
MAX	43	52	32	22	23	45	281	736	172	36	30	30
MIN	20	25	17	18	20	23	43	181	25	11	9.9	15
AC-FT	1880	2040	1340	1290	1230	1800	8550	25870	4980	1110	1080	1220

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1996, BY WATER YEAR (WY)

MEAN	25.5	28.2	22.5	20.9	22.3	32.5	126	297	114	27.4	19.1	19.4
MAX	50.0	46.0	38.8	31.1	35.8	68.5	272	618	299	72.1	59.0	48.2
(WY)	1987	1987	1986	1986	1986	1986	1986	1986	1984	1984	1984	1984
MIN	11.0	17.3	12.4	10.7	13.8	19.1	47.1	89.3	14.9	5.84	3.99	5.93
(WY)	1993	1994	1995	1994	1995	1991	1995	1990	1994	1994	1994	1990

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1984 - 1996
ANNUAL TOTAL	21673.8	26406.9	
ANNUAL MEAN	59.4	72.1	63.2
HIGHEST ANNUAL MEAN			115
LOWEST ANNUAL MEAN			28.5
HIGHEST DAILY MEAN	415	Jun 5	1270 May 16 1984
LOWEST DAILY MEAN	e8.2	Jan 22	1.5 Jul 1 1990
ANNUAL SEVEN-DAY MINIMUM	9.9	Jan 17	2.4 Aug 16 1994
INSTANTANEOUS PEAK FLOW		1020 May 17	1760 May 16 1984
INSTANTANEOUS PEAK STAGE		4.21 May 17	a 4.74 May 16 1984
ANNUAL RUNOFF (AC-FT)	42990	52380	45760
10 PERCENT EXCEEDS	197	203	155
50 PERCENT EXCEEDS	29	24	25
90 PERCENT EXCEEDS	12	17	11

e-Estimated.

a-Datum then in use, from outside high-water mark.

## EAGLE RIVER BASIN

**09063000 EAGLE RIVER AT RED CLIFF, CO**

LOCATION.--Lat 39°30'30", long 106°21'58", in NW<sup>1/4</sup>SW<sup>1/4</sup> sec.20, T.6 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on left bank at Red Cliff, and 0.3 mi upstream from Turkey Creek.

DRAINAGE AREA.--70.0 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1910 to September 1925, May 1944 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 2124: Drainage area. WRD Colo. 1972: 1971.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 8,653.80 ft above sea level, (levels by U.S. Bureau of Reclamation). Jan. 8, 1911 to Sept. 30, 1925, nonrecording gage at bridge 0.2 mi downstream at different datum. May 24, 1944 to Oct. 12, 1952, water-stage recorder at site 200 ft upstream at datum 1.46 ft, lower. Prior to May 6, 1982, at site 250 ft downstream at datum 5.00 ft, lower.

REMARKS.--Records good except for estimated daily discharges, which are poor. Transmountain diversions upstream from station by Columbine, Ewing, and Wurtz ditches. Transbasin diversion upstream from station from Robinson Reservoir, capacity, 2,520 acre-ft to Tenmile Creek for mining development. Small diversions for irrigation of 400 acres upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	20	e15	e10	e12	e10	e15	50	211	87	28	14
2	26	18	e15	e9.0	e11	e10	e15	59	215	82	27	13
3	24	17	e14	e9.0	e11	e11	e16	78	234	78	25	14
4	26	13	e14	e8.0	e10	e11	e16	108	259	74	25	13
5	28	12	e14	e9.0	e10	e11	e16	138	287	70	24	14
6	24	11	e13	e9.0	e9.0	e10	e16	167	308	68	22	21
7	27	6.2	e13	e10	e9.0	e10	e15	187	300	63	21	20
8	29	2.3	e13	e10	e10	e11	e15	207	293	60	21	17
9	27	8.6	e14	e10	e10	e11	e16	231	287	58	23	16
10	26	14	e14	e10	e11	e12	e17	229	277	55	23	15
11	26	13	e14	e11	e10	e12	e17	236	260	49	21	15
12	26	13	e15	e11	e11	e18	265	248	48	20	15	
13	30	9.8	e14	e11	e11	e11	e20	291	233	46	20	17
14	26	13	e14	e12	e12	e11	e24	310	221	44	19	18
15	26	15	e14	e11	e11	e12	e26	333	226	43	19	23
16	24	16	e13	e11	e11	e12	e31	380	210	42	19	19
17	23	16	e13	e12	e10	e12	30	428	196	e41	19	17
18	22	15	e13	e12	e10	e12	31	438	185	e40	18	17
19	22	14	e13	e12	e10	e13	31	465	171	e40	19	17
20	19	14	e13	e11	e10	e13	30	460	161	e39	19	17
21	19	13	e12	e11	e10	e13	27	396	162	e38	19	17
22	22	13	e12	e11	e11	e12	26	381	171	e37	18	17
23	19	13	e12	e12	e11	e12	26	362	150	e37	18	19
24	20	12	e12	e12	e10	e12	35	331	135	e36	18	24
25	20	e13	e12	e11	e11	e13	50	335	125	e36	16	22
26	19	e14	e12	e11	e10	e13	52	326	117	e34	16	20
27	20	e15	e12	e10	e10	e14	58	285	115	e33	16	19
28	19	e16	e11	e11	e11	e14	56	250	110	e32	16	19
29	19	e16	e11	e11	e10	e14	50	227	102	e32	16	19
30	20	e16	e11	e12	---	e15	48	215	93	34	15	17
31	19	---	e10	e12	---	e15	---	210	---	30	14	---
TOTAL	726	401.9	402	332.0	303.0	373	843	8378	6062	1506	614	525
MEAN	23.4	13.4	13.0	10.7	10.4	12.0	28.1	270	202	48.6	19.8	17.5
MAX	30	20	15	12	12	15	58	465	308	87	28	24
MIN	19	2.3	10	8.0	9.0	10	15	50	93	30	14	13
AC-FT	1440	797	797	659	601	740	1670	16620	12020	2990	1220	1040

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1996, BY WATER YEAR (WY)

MEAN	16.2	13.6	11.2	10.4	10.2	11.8	32.8	157	199	57.2	25.9	18.4
MAX	31.8	25.2	18.8	16.3	19.7	25.6	81.3	387	422	161	54.5	39.0
(WY)	1962	1985	1985	1918	1916	1916	1916	1911	1912	1995	1945	1921
MIN	10.4	8.47	7.06	5.07	4.74	5.68	9.48	36.5	38.4	18.8	10.7	8.89
(WY)	1989	1965	1989	1989	1989	1981	1975	1981	1954	1981	1977	1977

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1911 - 1996
ANNUAL TOTAL	23383.9	20465.9	
ANNUAL MEAN	64.1	55.9	47.1
HIGHEST ANNUAL MEAN			90.2
LOWEST ANNUAL MEAN			16.5
HIGHEST DAILY MEAN	561	May 18	900
LOWEST DAILY MEAN	2.3	Nov 8	a 1.0
ANNUAL SEVEN-DAY MINIMUM	7.9	Jan 14	Oct 15 1917
INSTANTANEOUS PEAK FLOW			b 3.8
INSTANTANEOUS PEAK STAGE		5.69 May 19	c 4.00
ANNUAL RUNOFF (AC-FT)	46380	40590	34110
10 PERCENT EXCEEDS	219	212	130
50 PERCENT EXCEEDS	19	17	16
90 PERCENT EXCEEDS	8.5	11	9.0

e-Estimated.

a-Also occurred Oct 16, 1917.

b-Maximum discharge observed, site and datum then in use, from rating curve extended above 500 ft<sup>3</sup>/s.

c-Maximum gage height recorded, 6.43 ft, May 24, 1984.

**09063200 WEARYMAN CREEK NEAR RED CLIFF, CO**

LOCATION.--Lat 39°31'20", long 106°19'23", in SE<sup>1/4</sup>SW<sup>1/4</sup> sec.15, T.6 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on right bank 0.15 mi upstream from mouth and 2.25 mi east of Red Cliff.

DRAINAGE AREA.--9.53 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 9,280 ft above sea level, from topographic map. Prior to Aug. 7, 1992, at site 0.25 mile upstream, at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. No regulation or diversion upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	e3.6	e1.6	e1.4	e1.5	e1.6	e2.8	e5.0	39	41	e8.0	3.9
2	4.1	e3.7	e1.7	e1.4	e1.6	e1.7	e2.9	e5.0	40	38	e8.0	3.9
3	4.0	e3.4	e1.6	e1.3	e1.6	e1.8	e2.9	e6.4	43	37	e7.5	3.7
4	4.1	e2.9	e1.6	e1.2	e1.8	e1.7	e2.9	e8.2	47	35	e7.0	3.7
5	4.0	e2.9	e1.8	e1.3	e1.8	e1.6	e3.0	e10	55	33	e7.0	4.2
6	3.2	e2.9	e1.8	e1.4	e1.9	e1.5	e2.9	e13	65	31	e7.0	4.6
7	3.6	e2.5	e1.9	e1.4	e1.9	e1.6	e2.8	e17	73	28	e6.3	4.1
8	3.7	e2.5	e1.8	e1.5	e1.9	e1.5	e2.8	e19	79	26	6.5	3.7
9	3.7	e2.4	e1.9	e1.4	e1.8	e1.5	e2.8	e20	80	25	6.3	3.6
10	3.6	e2.1	e1.8	e1.5	e1.8	e1.4	e2.9	e21	80	22	6.1	3.5
11	3.6	e2.0	e1.9	e1.4	e1.9	e1.4	e2.9	e21	79	21	5.9	3.5
12	3.9	e2.0	e1.8	e1.5	e1.9	e1.4	e2.9	e21	76	20	5.7	3.6
13	4.0	e2.0	e1.8	e1.4	e1.8	e1.3	e2.9	e22	74	19	5.6	3.8
14	3.6	e1.8	e1.9	e1.5	e1.8	e1.4	e3.0	e31	74	17	5.5	3.7
15	3.6	e1.6	e1.8	e1.5	e1.8	e1.4	e3.0	e39	76	17	5.4	4.2
16	3.5	e1.7	e1.7	e1.6	e1.8	e1.5	e3.0	e48	78	e16	5.4	3.7
17	3.6	e1.7	e1.7	e1.6	e1.7	e1.7	e3.0	e42	75	e15	5.2	3.5
18	3.6	e1.8	e1.6	e1.7	e1.8	e1.8	e3.0	e35	72	e15	5.2	3.5
19	3.5	e1.8	e1.6	e1.7	e1.9	e2.0	e3.0	e33	70	e15	5.2	3.6
20	2.9	e1.7	e1.6	e1.7	e1.8	e2.0	e2.9	e35	69	e14	5.2	3.5
21	3.0	e1.6	e1.6	e1.6	e1.8	e2.1	e3.1	e40	69	e14	5.1	3.5
22	3.3	e1.7	e1.6	e1.5	e1.9	e2.2	e3.0	e45	72	e14	4.9	3.5
23	3.7	e1.8	e1.5	e1.4	e1.8	e2.3	e3.5	e50	67	e13	4.8	3.7
24	2.7	e1.9	e1.5	e1.4	e1.9	e2.4	e4.0	e48	64	e12	4.7	4.3
25	3.0	e1.9	e1.5	e1.6	e1.9	e2.4	e5.0	50	60	e12	4.6	3.8
26	3.0	e1.9	e1.5	e1.6	e1.8	e2.5	e5.8	50	54	e11	4.8	3.5
27	4.0	e1.8	e1.6	e1.6	e1.8	e2.6	e6.4	48	51	e11	4.7	3.3
28	4.0	e1.8	e1.5	e1.6	e1.7	e2.7	e6.4	46	49	e10	4.4	3.4
29	3.9	e1.7	e1.5	e1.5	e1.6	e2.8	e6.0	43	46	e11	4.3	3.4
30	3.6	e1.6	e1.4	e1.6	---	e2.8	e5.4	41	44	e9.0	4.1	3.3
31	e3.6	---	e1.4	e1.5	---	e2.8	---	39	---	e8.5	4.0	---
TOTAL	112.0	64.7	51.5	46.3	52.0	59.4	106.9	951.6	1920	610.5	174.4	111.2
MEAN	3.61	2.16	1.66	1.49	1.79	1.92	3.56	30.7	64.0	19.7	5.63	3.71
MAX	4.4	3.7	1.9	1.7	1.9	2.8	6.4	50	80	41	8.0	4.6
MIN	2.7	1.6	1.4	1.2	1.5	1.3	2.8	5.0	39	8.5	4.0	3.3
AC-FT	222	128	102	92	103	118	212	1890	3810	1210	346	221

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1996, BY WATER YEAR (WY)

MEAN	2.77	1.94	1.58	1.33	1.24	1.34	2.16	12.6	45.8	21.7	6.94	3.87
MAX (WY)	5.02	2.86	2.48	1.95	1.80	2.28	4.66	34.4	90.2	55.5	17.4	9.57
MIN (WY)	1.65	1.27	1.06	.87	.45	.80	1.13	4.96	16.7	5.13	2.71	2.16
AC-FT	1985	1985	1985	1985	1985	1985	1984	1984	1984	1995	1984	1984

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR				FOR 1996 WATER YEAR				WATER YEARS 1965 - 1996			
ANNUAL TOTAL	4421.0				4260.5				8.61			
ANNUAL MEAN	12.1				11.6				17.4			
HIGHEST ANNUAL MEAN									3.61			
LOWEST ANNUAL MEAN									1977			
HIGHEST DAILY MEAN	e110		Jun 18		a80		Jun 9		140		Jun 20	1983
LOWEST DAILY MEAN	e,b1.4		Jan 1		e1.2		Jan 4		.30		Feb 21	1967
ANNUAL SEVEN-DAY MINIMUM	1.5		Dec 25		1.3		Dec 30		.40		Feb 8	1967
INSTANTANEOUS PEAK FLOW					84		Jun 10		c155		Jun 20	1983
INSTANTANEOUS PEAK STAGE					2.37		Jun 10		c3.61		Jun 20	1983
ANNUAL RUNOFF (AC-FT)	8770				8450				6240			
10 PERCENT EXCEEDS	45				43				25			
50 PERCENT EXCEEDS	2.5				3.4				2.4			
90 PERCENT EXCEEDS	1.6				1.5				1.2			

e-Estimated.

a-Also occurred Jun 10.

b-Also occurred Dec 30-31.

c-Site and datum then in use.

## EAGLE RIVER BASIN

## 09063400 TURKEY CREEK NEAR RED CLIFF, CO

LOCATION.--Lat 39°31'22", long 106°20'08", in NW<sup>1/4</sup>SW<sup>1/4</sup> sec.16, T.6 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on right bank 400 ft downstream from Lime Creek, 1.9 mi northeast of Red Cliff, and 2.0 mi upstream from mouth.

DRAINAGE AREA.--23.8 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1963 to current year.

REVISED RECORDS.--WDR CO-88-2: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 8,918 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. No diversion upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.4	6.1	e3.6	e2.7	e3.8	e3.8	e7.2	16	94	97	15	8.7
2	7.9	6.3	e3.7	e2.8	e3.9	e3.9	e8.4	16	113	96	14	8.6
3	7.7	e6.0	e3.6	e2.7	e3.9	e4.0	e8.6	18	168	94	14	8.3
4	8.2	e5.0	e3.5	e2.6	e4.0	e4.0	e8.8	23	189	86	13	8.4
5	7.9	e5.0	e3.6	e2.7	e4.0	e4.0	e8.8	29	150	81	12	9.1
6	8.4	e5.0	e3.7	e2.8	e4.0	e3.9	e9.0	33	131	77	12	11
7	8.1	4.5	e3.7	e2.8	e4.0	e4.0	e9.2	40	168	74	12	9.5
8	7.7	4.5	e3.7	e2.9	e4.0	e4.0	e9.4	42	207	67	11	8.6
9	7.6	4.4	e3.7	e2.9	e3.9	e4.1	e9.6	48	259	58	11	8.2
10	7.5	4.2	e3.7	e2.9	e3.9	e4.0	e9.8	52	300	52	12	8.0
11	7.5	4.1	e3.8	e2.9	e4.0	e4.0	e10	52	317	47	13	7.9
12	8.0	4.1	e3.7	e2.9	e4.0	e4.1	e10	54	326	45	13	8.3
13	7.9	4.1	e3.8	e2.8	e3.9	e4.1	e10	55	322	42	12	9.4
14	7.3	3.7	e3.8	e2.9	e3.9	e4.1	e11	59	239	40	12	8.8
15	7.2	e3.6	e3.6	e3.1	e3.9	e4.1	e11	72	267	38	12	11
16	7.1	e3.6	e3.5	e3.6	e3.9	e4.2	e11	100	247	36	12	8.5
17	7.0	e3.6	e3.5	e3.7	e3.8	e4.4	e12	148	246	36	11	8.0
18	6.9	e3.7	e3.4	e3.8	e3.9	e4.6	e12	138	237	34	11	8.3
19	6.8	e3.7	e3.3	e3.9	e4.0	e4.8	12	109	236	32	12	8.7
20	6.7	e3.6	e3.6	e3.2	e3.9	e4.8	11	82	235	29	11	8.4
21	6.6	e3.5	e3.2	e3.9	e3.9	e5.2	11	127	234	26	11	8.3
22	6.6	e3.6	e3.2	e3.8	e4.0	e5.4	10	145	208	24	11	8.2
23	6.3	e3.7	e3.1	e3.9	e3.9	e5.6	10	148	170	23	10	9.0
24	6.8	e3.8	e3.0	e3.9	e4.0	e5.8	12	199	139	21	10	11
25	e6.6	e3.8	e3.0	e4.0	e4.0	e5.8	16	196	149	20	9.9	9.4
26	e6.5	e3.9	e3.0	e4.0	e3.9	e6.2	17	213	157	19	10	8.8
27	6.5	e3.8	e3.1	e4.0	e3.9	e6.4	19	188	174	19	10	8.3
28	6.2	e3.8	e3.0	e4.0	e3.8	e6.6	19	131	153	18	9.9	8.2
29	6.0	e3.7	e3.0	e3.9	e3.8	e7.0	18	99	108	20	9.7	8.0
30	6.1	e3.7	e2.8	e3.9	---	e7.4	17	94	99	18	9.1	7.8
31	6.1	---	e2.8	e3.8	---	e7.8	---	91	---	16	8.9	---
TOTAL	222.1	126.1	105.3	104.4	113.8	152.1	347.8	2817	6042	1385	354.5	262.7
MEAN	7.16	4.20	3.40	3.37	3.92	4.91	11.6	90.9	201	44.7	11.4	8.76
MAX	8.4	6.3	3.8	4.0	4.0	7.8	19	213	326	97	15	11
MIN	6.0	3.5	2.8	2.6	3.8	3.8	7.2	16	94	16	8.9	7.8
AC-FT	441	250	209	207	226	302	690	5590	11980	2750	703	521

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1996, BY WATER YEAR (WY)

MEAN	6.18	4.57	3.62	3.14	2.94	3.48	7.63	47.7	121	48.9	14.1	8.05
MAX	12.2	9.19	5.76	4.96	4.39	6.36	23.1	103	274	139	39.1	19.8
(WY)	1985	1985	1985	1985	1985	1985	1985	1984	1984	1995	1984	1984
MIN	3.77	2.84	2.68	1.92	1.00	2.10	2.66	17.8	40.9	11.0	6.34	4.23
(WY)	1978	1978	1982	1987	1964	1981	1973	1995	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1964 - 1996
ANNUAL TOTAL	11671.2	12032.8	
ANNUAL MEAN	32.0	32.9	22.6
HIGHEST ANNUAL MEAN			49.4
LOWEST ANNUAL MEAN			9.46
HIGHEST DAILY MEAN	321	Jun 23	415
LOWEST DAILY MEAN	e1.7	Jan 1	a1.0
ANNUAL SEVEN-DAY MINIMUM	2.0	Feb 13	1.0
INSTANTANEOUS PEAK FLOW		375 Jun 12	b556 Jun 8 1985
INSTANTANEOUS PEAK STAGE		2.90 Jun 12	c2.87 Jun 8 1985
ANNUAL RUNOFF (AC-FT)	23150	23870	16410
10 PERCENT EXCEEDS	117	117	71
50 PERCENT EXCEEDS	5.7	8.0	5.8
90 PERCENT EXCEEDS	2.3	3.6	2.8

e-Estimated.

a-Also occurred Jan 22 to Feb 29, 1964.

b-From rating curve extended above 325 ft<sup>3</sup>/s.

c-Maximum gage height for period of record, 3.22 ft, Jun 24, 1983, backwater from debris.

## 09063900 MISSOURI CREEK NEAR GOLD PARK, CO

LOCATION.--Lat 39°23'25", long 106°28'10", Eagle County, Hydrologic Unit 14010003, on left bank 50 ft downstream from road culvert, 0.6 mi upstream from Fancy Creek, 2.2 mi southwest of Gold Park, and 10 mi southwest of Red Cliff.

DRAINAGE AREA.--6.39 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1972 to current year.

REVISED RECORDS.--WDR CO-88-2: Drainage area.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 9,980 ft above sea level, from topographic map.

REMARKS.-- Records good except for estimated daily discharges, which are poor. Transmountain diversion upstream from station to Arkansas River basin through Homestake Tunnel. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	2.7	e3.1	e2.0	e1.1	e.50	e1.2	2.4	17	24	18	5.5
2	5.3	3.4	e3.1	e2.0	e1.1	e.60	e1.2	2.5	20	20	19	5.2
3	5.1	3.8	e2.9	e2.0	e1.0	e.50	e1.1	3.3	25	14	19	4.9
4	6.1	3.9	e3.0	e2.0	e1.0	e.40	e1.1	6.0	32	16	18	4.8
5	7.3	4.2	e3.1	e2.0	e1.1	e.40	e1.1	9.8	43	23	15	5.2
6	7.7	4.7	e3.0	e2.1	e1.1	e.70	e1.3	15	54	24	13	6.6
7	6.9	4.6	e3.0	e2.1	e1.1	e.50	e1.3	14	47	19	12	6.5
8	6.0	4.5	e3.1	e2.0	e1.0	e.40	e1.3	15	47	12	11	5.1
9	5.9	3.7	e3.2	e2.0	e.90	e.40	e1.4	16	49	9.6	10	4.5
10	5.4	e3.5	e3.1	e1.8	e.60	e.50	e1.4	14	43	9.9	9.6	4.4
11	6.0	e3.6	e3.2	e1.8	e.40	e.50	e1.5	17	41	9.4	9.1	4.1
12	7.4	e3.6	e3.2	e1.5	e.40	e.60	e1.5	23	45	9.3	9.1	4.4
13	9.0	e3.7	e2.8	e1.5	e.40	e.70	e1.5	24	45	9.0	9.2	7.4
14	8.7	e3.6	e2.7	e1.6	e.40	e.80	e1.8	24	38	8.4	8.7	7.2
15	7.8	e3.7	e2.7	e1.6	e.40	e.80	e2.0	29	43	8.0	8.6	9.6
16	7.4	e3.7	e2.8	e1.5	e.40	e.80	e2.2	37	38	7.9	10	8.1
17	6.8	e3.6	e2.7	e1.5	e.40	e.90	2.3	37	36	9.2	9.3	7.4
18	6.2	e3.5	e2.8	e1.6	e.40	e1.0	2.2	44	39	8.1	9.2	7.1
19	5.6	e3.5	e2.7	e1.6	e.40	e.80	2.2	46	37	7.7	9.2	7.4
20	5.9	e3.2	e2.7	e1.7	e.40	e.80	2.2	29	37	7.5	9.0	7.0
21	5.3	e3.0	e2.6	e1.7	e.40	e.80	2.1	21	83	7.2	8.3	6.6
22	4.6	e3.2	e2.5	e1.5	e.30	e.80	1.9	25	85	7.0	8.6	7.5
23	5.4	e3.2	e2.4	e1.5	e.40	e.90	1.8	25	46	6.8	8.4	9.9
24	e6.0	e3.2	e2.5	e1.5	e.40	e.90	2.3	18	30	6.7	7.9	11
25	e5.5	e3.2	e2.4	e1.5	e.45	e.80	3.9	21	24	6.5	7.7	9.8
26	e5.0	e3.0	e2.5	e1.6	e.40	e.80	3.5	20	23	6.4	7.6	8.4
27	e4.5	e3.0	e2.4	e1.5	e.40	e.90	3.3	14	35	6.5	7.4	8.4
28	e4.0	e3.0	e2.2	e1.5	e.45	e.90	3.1	11	31	6.3	7.3	8.1
29	e3.5	e3.0	e2.0	e1.4	e.60	e.90	2.5	11	23	7.6	7.1	8.4
30	e3.0	e3.0	e2.0	e1.0	---	e1.0	2.3	13	22	13	6.9	8.4
31	2.8	---	e2.1	e1.0	---	e1.1	---	15	---	21	6.0	---
TOTAL	182.0	105.5	84.5	51.6	17.80	22.40	58.5	602.0	1178	351.0	319.2	208.9
MEAN	5.87	3.52	2.73	1.66	.61	.72	1.95	19.4	39.3	11.3	10.3	6.96
MAX	9.0	4.7	3.2	2.1	1.1	1.1	3.9	46	85	24	19	11
MIN	2.8	2.7	2.0	1.0	.30	.40	1.1	2.4	17	6.3	6.0	4.1
AC-FT	361	209	168	102	35	44	116	1190	2340	696	633	414

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1996, BY WATER YEAR (WY)

MEAN	3.01	1.80	1.10	.75	.63	.75	2.63	14.9	32.8	22.4	9.62	4.67
MAX	7.29	3.58	2.73	1.66	1.30	1.45	7.02	41.7	79.0	78.6	29.1	9.46
(WY)	1985	1986	1996	1996	1991	1991	1974	1984	1984	1984	1983	1984
MIN	.84	.61	.35	.31	.28	.37	.71	4.00	12.7	9.32	3.55	1.65
(WY)	1980	1977	1977	1976	1977	1979	1983	1983	1977	1988	1977	1974

SUMMARY STATISTICS

FOR 1995 CALENDAR YEAR

FOR 1996 WATER YEAR

WATER YEARS 1972 - 1996

ANNUAL TOTAL	3803.94	3181.40	
ANNUAL MEAN	10.4	8.69	7.95
HIGHEST ANNUAL MEAN			20.6
LOWEST ANNUAL MEAN			4.35
HIGHEST DAILY MEAN	101	Jul 15	172
LOWEST DAILY MEAN	e .69	Jan 2	a .24
ANNUAL SEVEN-DAY MINIMUM	.74	Jan 17	.25
INSTANTANEOUS PEAK FLOW			b .300
INSTANTANEOUS PEAK STAGE			c .3.19
ANNUAL RUNOFF (AC-FT)	7550	6310	5760
10 PERCENT EXCEEDS	29	24	20
50 PERCENT EXCEEDS	3.3	3.9	2.2
90 PERCENT EXCEEDS	.88	.80	.52

e-Estimated.

a-Also occurred Feb 13, 1977.

b-From rating curve extended above 35 ft<sup>3</sup>/s.

c-Maximum gage height, 3.83 ft, Jul 30, 1983.

## EAGLE RIVER BASIN

## 09064000 HOMESTAKE CREEK AT GOLD PARK, CO

LOCATION.--Lat 39°24'20", long 106°25'58", Eagle County, Hydrologic Unit 14010003, on left bank at Gold Park, 400 ft downstream from ford at Gold Park Campground, 0.5 mi downstream from French Creek, and 8 mi southwest of Red Cliff.

DRAINAGE AREA.--36.0 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1947 to September 1954, August 1972 to current year. Statistical summary computed for 1973 to current year.

REVISED RECORDS.--WDR CO-88-2: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry, and crest-stage gage. Elevation of gage is 9,200 ft above sea level, from topographic map. Prior to Aug. 1, 1972, water-stage recorder at site 1,500 ft upstream at datum 9,245 ft above sea level (river-profile survey).

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow regulated by Homestake Lake, capacity, 44,360 acre-ft, since June 7, 1966. Transmountain diversion upstream from station to Arkansas River basin through Homestake Tunnel since June 6, 1967. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	13	e11	e10	e12	10	9.9	22	60	47	46	12
2	18	e13	e11	e10	e12	11	12	27	63	42	45	11
3	18	e12	e10	e11	e11	10	12	36	83	35	46	10
4	21	e12	e11	e11	e11	8.5	11	51	106	36	44	10
5	25	e12	12	e11	e12	8.1	11	75	154	43	38	11
6	26	e12	e11	e12	e12	11	11	89	188	48	33	15
7	22	12	e11	e12	13	9.7	13	98	159	40	31	14
8	22	13	e12	e11	12	8.7	e13	105	159	30	29	12
9	20	10	e11	e11	10	8.0	e14	89	164	27	27	11
10	18	e10	12	e10	9.3	7.7	e14	81	136	26	26	10
11	19	e11	12	e10	8.7	7.5	e13	88	114	24	24	9.9
12	25	e11	12	e9.0	8.4	7.4	e12	112	123	23	24	11
13	31	12	10	e9.0	8.5	7.3	e12	124	123	22	23	16
14	27	11	e11	e10	8.5	7.4	e14	121	110	21	22	17
15	25	13	e12	e10	8.5	7.3	e16	132	120	24	22	25
16	24	e12	13	e10	8.9	7.4	17	174	105	28	27	19
17	22	10	12	e10	8.5	8.3	17	198	99	34	23	17
18	20	e10	13	e11	8.8	9.8	16	187	102	40	23	16
19	18	e9.0	e12	e11	8.8	7.9	e15	234	92	37	23	17
20	18	e8.0	e12	e12	e8.4	7.7	e14	171	94	35	22	17
21	17	e10	e11	e12	e8.0	7.8	14	95	240	33	20	16
22	15	e10	e11	e11	e7.5	7.8	e14	114	268	45	22	17
23	20	e11	e11	e11	e8.0	7.9	13	103	109	57	22	26
24	37	e11	e12	e11	e8.0	8.0	20	80	70	36	19	31
25	29	e11	e11	e11	e9.0	8.0	33	94	55	28	18	28
26	17	e10	e12	e12	e8.0	7.8	28	91	53	28	18	23
27	14	e10	e11	e11	e8.0	7.7	28	64	70	32	17	22
28	13	e10	e10	e11	e9.0	7.8	24	52	64	31	15	21
29	14	e10	e10	e11	11	8.0	29	50	50	40	14	23
30	11	e10	e10	e10	---	8.5	20	55	46	49	13	22
31	11	---	e11	e11	---	9.0	---	56	---	56	12	---
TOTAL	637	329.0	351	333.0	276.8	259.0	489.9	3068	3379	1097	788	509.9
MEAN	20.5	11.0	11.3	10.7	9.54	8.35	16.3	99.0	113	35.4	25.4	17.0
MAX	37	13	13	12	13	11	33	234	268	57	46	31
MIN	11	8.0	10	9.0	7.5	7.3	9.9	22	46	21	12	9.9
AC-FT	1260	653	696	661	549	514	972	6090	6700	2180	1560	1010

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1996, BY WATER YEAR (WY)

MEAN	13.9	9.95	7.52	6.10	5.77	6.64	14.8	65.8	98.4	64.2	32.9	16.8
MAX	31.4	15.2	13.8	10.9	10.3	12.4	33.8	211	310	243	121	34.8
(WY)	1985	1991	1986	1986	1986	1989	1989	1984	1984	1995	1983	1984
MIN	6.15	4.37	2.78	2.16	1.98	2.56	5.50	29.7	38.0	24.4	12.9	8.36
(WY)	1990	1990	1976	1976	1976	1976	1983	1977	1992	1988	1977	1977

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1973 - 1996

ANNUAL TOTAL	19404.9		11515.6									
ANNUAL MEAN	53.2		31.5									
HIGHEST ANNUAL MEAN										a 28.7		
LOWEST ANNUAL MEAN										79.2		
HIGHEST DAILY MEAN	b 465	Jun 18	268	Jun 22	c 602	Jun 30	1984					
LOWEST DAILY MEAN	e 2.4	Jan 1	d 7.3	Mar 13	1.8	Feb 5	1976					
ANNUAL SEVEN-DAY MINIMUM	3.2	Jan 17	7.4	Mar 10	1.9	Jan 31	1976					
INSTANTANEOUS PEAK FLOW			410	Jun 21	f 930	Jun 30	1984					
INSTANTANEOUS PEAK STAGE			g 5.25	Jun 21	h 6.21	Jun 30	1984					
ANNUAL RUNOFF (AC-FT)	38490		22840		20770							
10 PERCENT EXCEEDS	157		90		64							
50 PERCENT EXCEEDS	12		14		12							
90 PERCENT EXCEEDS	3.9		8.6		4.5							

e-Estimated.

a-Average discharge for 7 years (water years 1948-54), 63.4 ft<sup>3</sup>/s, 45,930 acre-ft/yr, prior to diversion through Homestake Tunnel.

b-May have been higher during period of indefinite stage-discharge relationship, Jun 17, Jul 13-17.

c-Maximum daily discharge for period of record, 755 ft<sup>3</sup>/s, Jun 21, 1951.

d-Also occurred Mar 15.

f-Maximum discharge and stage for period of record, 1080 ft<sup>3</sup>/s, Jun 13, 1953, gage height, 6.84 ft, site and datum then in use, from rating curve extended above 700 ft<sup>3</sup>/s.

g-Maximum gage height, 6.01 ft, Jan 7, backwater from ice.

h-Maximum gage height for statistical period, 6.31 ft, Apr 5, 1978, backwater from ice.

## 09064500 HOMESTAKE CREEK NEAR RED CLIFF, CO

LOCATION.--Lat 39°28'24", long 106°22'02", in NE<sup>1/4</sup>NE<sup>1/4</sup> sec.6, T.7 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on right bank at downstream side of Forest Service road bridge, 2.4 mi south of Red Cliff, and 3.0 mi upstream from mouth.

DRAINAGE AREA.--58.2 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1910 to September 1918, May 1944 to current year. Published as "at Redcliff" October 1910 to September 1916. Statistical summary computed for 1967 to current year.

REVISED RECORDS.--WDR CO-88-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 8,783 ft above sea level (river-profile survey). See WSP 1713 or 1733 for history of changes prior to May 8, 1961.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow regulated by Homestake Lake (capacity, 44,360 acre-ft) since June 7, 1966. Transmountain diversions upstream from station through Homestake Tunnel (see elsewhere in this report) since June 6, 1967. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	e17	e16	e16	e17	e14	e19	e66	127	81	60	8.8
2	28	e15	e17	e16	e16	e15	e23	e82	136	72	56	7.8
3	26	e16	e17	e17	e15	e15	e30	e110	157	72	56	6.2
4	31	e17	e16	e17	e16	e16	e27	e150	191	70	57	5.9
5	38	e17	e17	e16	e17	e16	e25	e170	255	73	51	6.6
6	41	e18	e17	e17	e18	e15	e26	e190	219	77	44	13
7	37	e18	e17	e18	e17	e15	e30	e210	204	88	42	21
8	37	e18	e17	e18	e17	e14	e34	e200	229	66	40	14
9	32	e19	e17	e18	e16	e15	e39	e180	199	58	36	9.1
10	28	e17	e16	e17	e15	e15	e45	e190	174	57	33	7.3
11	29	e18	e16	e17	e15	e16	e50	e210	181	51	29	6.6
12	37	e19	e16	e17	e16	e16	e56	e240	167	48	28	6.4
13	52	e19	e17	e17	e16	e16	e52	e240	179	45	28	16
14	44	e19	e15	e17	e16	e17	e50	e250	153	41	33	21
15	39	e19	e14	e17	e15	e17	e50	e289	176	39	25	33
16	35	e18	e14	e17	e16	e16	e52	e310	150	45	31	30
17	32	e19	e14	e16	e16	e15	60	e290	143	47	27	23
18	29	e19	e12	e15	e17	e14	e54	e320	140	58	34	19
19	24	e18	e11	e16	e18	e14	e52	e310	128	59	27	21
20	22	e18	e11	e17	e19	e14	e50	e260	233	54	27	21
21	22	e17	e12	e17	e21	e15	e47	e200	294	50	24	21
22	19	e17	e13	e17	e21	e16	e47	e180	226	51	26	20
23	18	e17	e11	e17	e19	e18	e54	e170	125	69	26	27
24	21	e16	e10	e17	e17	e17	e66	166	108	58	23	43
25	26	e16	e11	e16	e16	e15	e68	189	91	44	21	44
26	20	e17	e11	e16	e15	e15	e60	180	113	40	21	35
27	e13	e16	e12	e15	e16	e16	e56	150	109	44	21	29
28	e14	e16	e13	e16	e15	e16	e66	131	99	50	16	29
29	e15	e15	e14	e17	e14	e17	e60	125	86	47	15	28
30	e14	e15	e16	e17	---	e18	e50	127	82	60	12	28
31	e16	---	e17	e17	---	e18	---	128	---	70	9.7	---
TOTAL	872	520	447	518	483	486	1398	6013	4874	1784	978.7	600.7
MEAN	28.1	17.3	14.4	16.7	16.7	15.7	46.6	194	162	57.5	31.6	20.0
MAX	52	19	17	18	21	18	68	320	294	88	60	44
MIN	13	15	10	15	14	14	19	66	82	39	9.7	5.9
AC-FT	1730	1030	887	1030	958	964	2770	11930	9670	3540	1940	1190

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1996, BY WATER YEAR (WY)

MEAN	19.2	13.5	10.4	8.56	8.44	10.7	35.7	125	147	75.9	36.6	22.3
MAX	45.1	31.0	19.7	16.7	16.7	22.5	73.1	358	439	313	136	42.3
(WY)	1985	1985	1985	1996	1996	1989	1986	1984	1984	1984	1983	1984
MIN	8.59	5.30	4.66	3.19	2.93	3.60	10.8	53.6	55.2	27.8	8.54	8.29
(WY)	1976	1967	1989	1987	1987	1981	1983	1990	1992	1967	1990	1977

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1967 - 1996
ANNUAL TOTAL	26576.9	18974.4	
ANNUAL MEAN	72.8	51.8	a 42.9
HIGHEST ANNUAL MEAN			116
LOWEST ANNUAL MEAN			20.3
HIGHEST DAILY MEAN	596	Jun 17	e 320 May 18
LOWEST DAILY MEAN	e 4.2	Jan 23	831 May 25 1984
ANNUAL SEVEN-DAY MINIMUM	5.0	Jan 18	b 1.8 Sep 2 1990
INSTANTANEOUS PEAK FLOW			c 2.1 Aug 29 1990
INSTANTANEOUS PEAK STAGE			d 943 May 24 1984
ANNUAL RUNOFF (AC-FT)	52720	37640	3.96 May 24 1984
10 PERCENT EXCEEDS	232	160	31070
50 PERCENT EXCEEDS	23	21	115
90 PERCENT EXCEEDS	6.8	14	17
			6.2

e-Estimated.

a-Average discharge for 30 years (water years 1911-18, 1945-66), 86.6 ft<sup>3</sup>/s; 62,740 acre-ft/yr, prior to diversion through Homestake tunnel.

b-Minimum observed for period of record, 0.60 ft<sup>3</sup>/s, Jan 25, 1915 (discharge measurement).

c-May have been higher during period of no gage-height record, Apr 18 to May 23.

d-Maximum discharge and stage for period of record, 1300 ft<sup>3</sup>/s, Jun 24, 1918, gage height, 6.20 ft, site and datum then in use.

## EAGLE RIVER BASIN

**09064600 EAGLE RIVER NEAR MINTURN, CO**

LOCATION.--Lat 39°33'14", long 106°24'07", in SW<sup>1/4</sup>SE<sup>1/4</sup> of unsurveyed sec. T.6 S., R.81 W., Eagle County, Hydrologic Unit 14010003, on left bank 500 ft upstream from U.S. Highway 24 bridge and 2.5 miles southeast of Minturn.

DRAINAGE AREA.--186 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1989 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 8,078.37 ft above sea level, from levels by private engineering firm.

REMARKS.--Records good except for estimated daily discharges, which are poor. Transmountain diversions upstream from station by Columbine, Ewing, and Wurtz ditches. Transmountain diversion from Robinson Reservoir, capacity 2,520 acre-ft, for use in Tenmile Creek basin. Several small diversions for irrigation upstream from station. No regulation. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	54	54	e47	e40	e42	78	197	538	328	114	43
2	75	50	51	e43	e39	e40	101	230	554	312	108	42
3	70	40	49	e44	e36	e43	120	285	606	284	107	41
4	75	50	52	e45	e35	e44	129	378	697	270	109	39
5	81	46	53	e44	e40	e43	134	473	777	266	98	42
6	71	50	54	e43	e44	e42	137	553	888	265	88	57
7	80	50	53	e41	e40	e38	156	589	875	268	85	61
8	82	44	57	e43	e41	e38	193	636	854	228	83	50
9	75	45	58	e44	e41	e37	272	667	871	210	81	45
10	73	47	54	e45	e40	e37	353	649	842	197	76	42
11	71	52	50	e43	e38	e38	384	650	802	183	71	41
12	77	61	58	e43	e37	e39	364	740	793	172	68	42
13	95	54	55	e42	e37	e40	257	825	760	163	67	56
14	83	52	56	e43	e40	e40	127	867	741	152	65	61
15	80	48	44	e44	e38	41	118	907	739	146	63	82
16	75	47	e41	e43	e38	39	125	1030	720	148	70	69
17	71	47	e44	e40	e41	38	139	1120	674	153	66	58
18	67	41	e39	e38	e44	38	133	1090	645	160	64	56
19	64	45	e36	e39	e45	47	121	1180	613	152	67	58
20	55	45	e33	e41	e48	46	110	1170	576	139	66	59
21	57	42	e36	e42	e52	50	104	956	709	131	63	56
22	60	43	e34	e41	e56	47	96	939	798	128	64	55
23	51	41	e30	e40	e50	53	98	919	641	141	70	65
24	48	38	e27	e40	e46	54	141	822	516	128	62	92
25	55	51	e29	e40	e45	58	223	829	463	110	56	85
26	58	50	e31	e38	e46	54	222	841	421	104	54	74
27	54	47	e33	e36	e45	56	235	711	437	104	66	66
28	51	43	e37	e38	e44	53	214	623	426	101	55	66
29	49	57	e42	e41	e40	56	182	561	384	114	52	65
30	50	53	e46	e42	---	60	179	542	349	131	49	64
31	50	---	e47	e42	---	66	---	535	---	130	45	---
TOTAL	2087	1433	1383	1295	1226	1417	5245	22514	19709	5518	2242	1732
MEAN	67.3	47.8	44.6	41.8	42.3	45.7	175	726	657	178	72.3	57.7
MAX	95	61	58	47	56	66	384	1180	888	328	114	92
MIN	48	38	27	36	35	37	78	197	349	101	45	39
AC-FT	4140	2840	2740	2570	2430	2810	10400	44660	39090	10940	4450	3440

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1996, BY WATER YEAR (WY)

MEAN	42.5	37.7	30.0	27.2	26.3	30.8	88.8	402	539	223	83.8	54.8
MAX	67.3	47.8	44.6	41.8	42.3	45.7	175	726	962	661	186	73.8
(WY)	1996	1996	1996	1996	1996	1996	1996	1996	1995	1995	1995	1995
MIN	27.6	25.3	21.2	17.9	18.4	23.5	50.4	219	263	94.8	49.8	40.6
(WY)	1990	1990	1990	1990	1990	1991	1991	1990	1992	1994	1990	1994

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1990 - 1996
ANNUAL TOTAL	74046	65801	
ANNUAL MEAN	203	180	132
HIGHEST ANNUAL MEAN			197
LOWEST ANNUAL MEAN			87.9
HIGHEST DAILY MEAN	1540	Jun 18	1540
LOWEST DAILY MEAN	13	Jan 22	11
ANNUAL SEVEN-DAY MINIMUM	17	Jan 17	16
INSTANTANEOUS PEAK FLOW		1310 May 19	1810 Jun 18 1995
INSTANTANEOUS PEAK STAGE		6.14 May 19	6.75 Jun 18 1995
ANNUAL RUNOFF (AC-FT)	146900	130500	95940
10 PERCENT EXCEEDS	772	642	381
50 PERCENT EXCEEDS	58	58	46
90 PERCENT EXCEEDS	21	40	23

e-Estimated.

## 09065100 CROSS CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°34'05", long 106°24'43", in SW<sup>1/4</sup>SW<sup>1/4</sup> sec.36, T.5 S., R.81 W., Eagle County, Hydrologic Unit 14010003, on right bank 0.4 mi upstream from mouth and 1.5 mi southeast of Minturn.

DRAINAGE AREA.--34.2 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1956 to September 1963, October 1967 to current year.

REVISED RECORDS.--WDR CO-81-2: 1980 (M). WDR CO-88-2: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 7,992 ft above sea level, from topographic map. Prior to July 18, 1956, nonrecording gage at site 0.3 mi downstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Bolts ditch exports water upstream from station to tailings ponds and recreation lake along Eagle River. Diversion 0.5 mi upstream from station for water supply of school and for municipal supply of Minturn. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	14	e10	e5.6	e5.4	e5.4	e11	37	129	197	54	13
2	22	10	e9.6	e5.4	e5.2	e5.6	e12	44	141	198	51	12
3	21	e9.6	e9.2	e5.8	e5.2	e5.4	e14	51	181	170	50	12
4	23	e9.4	e8.8	e5.8	e5.6	e5.8	e13	73	240	178	50	11
5	24	e9.8	8.1	e5.6	e6.2	e6.2	e13	102	289	191	46	12
6	20	e10	7.8	e5.5	e6.0	e6.0	e14	125	341	194	39	14
7	24	11	e7.4	e5.8	e5.6	e5.6	e15	135	343	181	36	22
8	24	11	e7.2	e6.0	e5.6	e5.4	e17	147	319	152	34	17
9	22	9.4	7.1	e6.2	e5.4	e5.4	e21	165	337	128	32	13
10	21	9.5	e6.8	e6.2	e5.2	e5.6	e27	170	323	119	30	11
11	21	e9.8	e6.4	e5.8	e5.2	e6.0	e33	171	302	137	27	11
12	24	e10	6.2	e5.8	e5.4	e6.8	e30	219	302	128	26	11
13	32	11	6.0	e5.6	e5.7	e7.2	e25	292	293	113	25	24
14	27	10	e5.8	e5.6	e5.6	e7.0	e23	327	279	103	24	31
15	25	e11	e5.8	e5.4	e5.6	e7.4	e25	333	267	102	23	41
16	24	e10	e6.2	e5.0	e5.6	e7.2	e27	378	303	97	28	37
17	23	9.7	e5.8	e4.9	e6.0	e7.0	29	384	269	113	26	30
18	22	e10	e5.4	e5.2	e6.0	e7.0	28	376	269	120	24	27
19	21	e10	e4.8	e5.4	e6.2	e7.4	28	310	260	96	27	26
20	17	e9.8	e5.2	e5.4	e6.2	e7.8	31	352	233	89	25	22
21	17	e9.0	e5.4	e5.4	e6.5	e8.6	22	324	358	86	24	19
22	18	7.9	e4.5	e5.3	e6.2	e9.0	21	205	475	77	24	17
23	13	7.6	e4.0	e5.1	e6.0	e9.8	17	233	405	71	27	23
24	22	e9.0	e3.8	e5.0	e5.6	e9.4	28	244	256	66	24	46
25	21	e8.8	e4.1	e5.0	e6.0	e8.6	56	183	233	62	21	45
26	15	e9.4	e4.4	e5.0	e5.6	e8.4	52	207	197	56	19	36
27	13	e11	e4.7	e4.7	e5.3	e8.8	53	199	239	54	20	28
28	13	e9.8	e5.0	e5.2	e5.2	e9.0	47	141	246	51	19	27
29	13	e9.6	e5.4	e5.4	e5.0	e9.6	41	114	219	62	17	27
30	13	e10	e5.7	e5.5	---	e10	32	104	205	77	16	27
31	13	---	e5.8	e5.6	---	e11	---	117	---	62	15	---
TOTAL	633	297.1	192.4	169.2	164.3	229.4	805	6262	8253	3530	903	692
MEAN	20.4	9.90	6.21	5.46	5.67	7.40	26.8	202	275	114	29.1	23.1
MAX	32	14	10	6.2	6.5	11	56	384	475	198	54	46
MIN	13	7.6	3.8	4.7	5.0	5.4	11	37	129	51	15	11
AC-FT	1260	589	382	336	326	455	1600	12420	16370	7000	1790	1370

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1996, BY WATER YEAR (WY)

MEAN	13.2	6.97	4.09	2.90	2.77	3.70	21.2	120	254	135	43.1	21.8
MAX	49.5	15.6	8.99	5.46	6.19	9.42	57.6	221	360	355	122	65.0
(WY)	1962	1962	1985	1996	1982	1986	1962	1970	1980	1957	1983	1961
MIN	3.39	1.99	.99	.17	.48	1.09	6.35	57.8	134	38.5	14.4	6.68
(WY)	1957	1957	1963	1963	1977	1977	1973	1995	1977	1977	1977	1974

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1957 - 1996
ANNUAL TOTAL	25543.61	22130.4	
ANNUAL MEAN	70.0	60.5	
HIGHEST ANNUAL MEAN			52.5
LOWEST ANNUAL MEAN			83.2
HIGHEST DAILY MEAN	564	Jun 17	25.4
LOWEST DAILY MEAN	a .75	Feb 9	Jun 30 1957
ANNUAL SEVEN-DAY MINIMUM	1.0	4.4	Dec 27 1962
INSTANTANEOUS PEAK FLOW		576	Dec 26 1962
INSTANTANEOUS PEAK STAGE		5.09	Jun 30 1957
ANNUAL RUNOFF (AC-FT)	50670	43900	754
10 PERCENT EXCEEDS	241	219	C 5.45
50 PERCENT EXCEEDS	17	17	Jun 30 1957
90 PERCENT EXCEEDS	4.4	5.4	11
			2.1

e-Estimated.

a-Also occurred Feb 10.

b-Also occurred Dec 28-31, 1962, Jan 6-8, 11-15, 1963.

c-Maximum gage height, 6.14 ft, Aug 6, 1983.

## EAGLE RIVER BASIN

**09065500 GORE CREEK AT UPPER STATION, NEAR MINTURN, CO**

LOCATION.--Lat 39°37'33", long 106°16'39", in NE<sup>1/4</sup>NW<sup>1/4</sup> sec.18, T.5 S., R.79 W., Eagle County, Hydrologic Unit 14010003, on right bank 10 ft downstream from bridge pier on Interstate 70, 0.2 mi upstream from Black Gore Creek, 4.4 mi east of Vail, and 8.4 mi northeast of Minturn.

DRAINAGE AREA.--14.4 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1947 to September 1956, October 1963 to current year.

REVISED RECORDS.--WDR CO-89-2: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 8,600 ft above sea level, from topographic map. Oct. 1, 1947 to Sept. 30, 1956, Oct. 1, 1963 to Sept. 30, 1980, at various sites about 1200 ft upstream at different datums. See WDR CO-80-2, for history of changes prior to Oct. 1, 1980.

REMARKS.--Records good except for estimated daily discharges, which are poor. No diversion upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of his report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	e9.8	e4.9	e4.1	e4.2	e4.0	e4.7	15	85	152	30	e8.6
2	12	e9.6	e4.8	e4.1	e4.0	e4.0	e5.0	16	100	137	28	e8.0
3	12	e9.6	e4.8	e4.0	e4.0	e3.8	e5.2	17	137	131	29	e7.5
4	12	e8.3	e4.8	e3.9	e4.0	e3.8	e5.0	23	159	136	26	7.2
5	12	e8.1	e4.8	e3.8	e4.0	e3.8	e4.6	36	208	143	24	7.7
6	13	e7.7	e4.8	e3.6	e4.0	e3.8	e4.8	49	249	137	23	11
7	13	e6.9	e4.7	e3.7	e4.0	e3.8	e5.2	59	224	126	23	9.2
8	13	e6.9	e4.6	e3.9	e4.0	e3.8	e5.6	69	227	115	20	7.5
9	12	e6.8	e4.5	e4.0	e3.8	e3.8	e6.0	76	227	101	18	6.7
10	12	e6.6	e4.5	e4.0	e3.8	e3.7	e7.0	75	225	99	18	6.4
11	13	e6.4	e4.5	e4.0	e3.9	e3.7	e7.8	76	213	97	17	6.1
12	15	e6.4	e4.6	e4.0	e4.0	e3.7	e8.0	95	215	90	16	7.3
13	15	e6.5	e4.5	e4.0	e4.0	e3.7	e7.8	115	240	86	15	10
14	14	e6.6	e4.4	e4.0	e4.0	e3.7	e7.6	115	212	81	14	9.8
15	14	e6.4	e4.3	e4.0	e4.0	e3.7	e7.2	123	203	74	15	13
16	14	e6.2	e4.3	e4.0	e4.2	e3.8	e6.8	143	209	70	14	10
17	14	e5.8	e4.3	e4.0	e4.2	e3.8	e7.6	159	220	83	13	9.7
18	13	e6.0	e4.3	e4.0	e4.2	e3.8	e8.2	146	237	75	14	11
19	13	e6.2	e4.3	e4.0	e4.1	e3.8	e8.0	168	226	64	14	12
20	e12	e6.0	e4.3	e4.0	e4.1	e3.8	e7.8	159	243	63	12	12
21	e12	e5.8	e4.3	e3.9	e4.1	e3.8	e7.4	125	280	59	12	13
22	e11	e5.6	e4.5	e3.8	e4.3	e3.8	e7.2	141	320	53	12	e10
23	e11	e5.4	e4.5	e4.0	e4.4	e3.8	e10	145	224	49	12	e11
24	e11	e5.4	e4.5	e4.0	e4.3	e3.8	17	129	186	46	e12	e18
25	e11	e5.4	e4.5	e4.0	e4.2	e3.9	25	144	165	42	e11	e18
26	e11	e5.4	e4.4	e4.0	e4.0	e4.0	21	136	154	38	e11	e14
27	e11	e5.4	e4.3	e4.0	e4.0	e4.1	21	98	161	35	e11	e12
28	e10	e5.2	e4.3	e4.0	e4.0	e4.3	18	79	151	32	e10	e12
29	e9.9	e5.4	e4.3	e4.0	e4.0	e4.4	16	71	146	33	e9.8	e14
30	e9.6	e5.0	e4.2	e3.8	--	e4.5	15	77	160	31	e9.0	e16
31	e9.4	---	e4.1	e4.0	--	e4.5	--	83	--	30	e9.0	---
TOTAL	377.9	196.8	138.9	122.6	117.8	120.7	287.5	2962	6006	2508	501.8	318.7
MEAN	12.2	6.56	4.48	3.95	4.06	3.89	9.58	95.5	200	80.9	16.2	10.6
MAX	15	9.8	4.9	4.1	4.4	4.5	25	168	320	152	30	18
MIN	9.4	5.0	4.1	3.6	3.8	3.7	4.6	15	85	30	9.0	6.1
AC-FT	750	390	276	243	234	239	570	5880	11910	4970	995	632

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1996, BY WATER YEAR (WY)

MEAN	7.35	4.96	3.71	3.18	3.06	3.61	11.7	68.0	155	71.3	20.6	9.61
MAX	19.8	15.3	9.23	9.75	10.6	12.6	22.5	121	245	198	83.7	22.9
(WY)	1985	1985	1986	1986	1986	1985	1969	1974	1978	1983	1983	1984
MIN	3.12	2.50	1.94	1.86	1.55	1.57	3.81	23.4	59.2	17.2	7.37	3.52
(WY)	1976	1976	1964	1964	1977	1977	1973	1968	1954	1977	1954	1956

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1948 - 1996

ANNUAL TOTAL	15111.2		13658.7									
ANNUAL MEAN	41.4		37.3									
HIGHEST ANNUAL MEAN												
LOWEST ANNUAL MEAN												
HIGHEST DAILY MEAN	a245	Jul 11		320	Jun 22							
LOWEST DAILY MEAN	e2.8	Jan 2		e3.6	Jan 6							
ANNUAL SEVEN-DAY MINIMUM	2.9	Feb 4		3.7	Mar 9							
INSTANTANEOUS PEAK FLOW				418	Jun 22							
INSTANTANEOUS PEAK STAGE				3.62	Jun 22							
ANNUAL RUNOFF (AC-FT)	29970		27090									
10 PERCENT EXCEEDS	177		142									
50 PERCENT EXCEEDS	9.3		9.1									
90 PERCENT EXCEEDS	3.0		4.0									

e-Estimated.

a-Also occurred Jul 12.

b-From rating curve extended above 140 ft<sup>3</sup>/s.

c-Maximum gage height, 6.65 ft, Jun 18, 1951, datum then in use.

## 09066000 BLACK GORE CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°35'47", long 106°15'52", T.5 S., R.79 W., Eagle County, Hydrologic Unit 14010003, on right bank 200 ft from U.S. Highway 6, 0.3 mi upstream from Timber Creek, 2.5 mi upstream from mouth, and 9 mi east of Minturn.

DRAINAGE AREA.--12.6 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1947 to September 1956, October 1963 to current year.

REVISED RECORDS.--WDR CO-89-2: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 9,150 ft above sea level, from topographic map. Prior to October 1963, at site 15 ft upstream, at present datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. No diversions upstream from station. Natural regulation by two small recreation lakes upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	e3.3	e3.2	e2.5	e2.6	e2.5	e4.9	9.7	90	49	e7.8	3.8
2	5.6	e3.4	e3.3	e2.4	e2.4	e2.5	e5.2	10	104	45	e7.5	3.7
3	5.2	e3.5	e3.2	e2.4	e2.4	e2.6	e5.6	11	126	42	e7.2	3.6
4	6.5	e3.6	e3.0	e2.4	e2.4	e2.7	e5.8	17	149	39	e6.8	3.6
5	7.1	e3.7	e3.1	e2.3	e2.4	e2.7	e5.4	26	174	36	e6.6	4.0
6	7.3	e3.8	e3.1	e2.2	e2.5	e2.7	e5.4	32	191	33	e6.4	4.7
7	7.4	e3.8	e3.1	e2.3	e2.5	e2.7	e5.6	37	193	30	6.2	4.4
8	5.6	e3.8	e3.1	e2.4	e2.5	e2.7	e5.8	45	189	28	6.1	4.0
9	5.2	e3.8	e3.0	e2.5	e2.5	e2.9	e6.4	51	186	26	5.9	3.8
10	5.1	e3.8	e2.9	e2.6	e2.6	e3.1	e6.6	49	179	e25	5.7	3.6
11	5.1	e3.8	e3.0	e2.6	e2.6	e3.4	e6.8	57	171	e24	5.4	3.6
12	5.5	e3.8	e3.0	e2.5	e2.6	e3.6	e6.8	74	157	e22	5.3	4.1
13	6.3	e3.7	e3.0	e2.5	e2.6	e3.4	e6.8	85	149	e21	5.1	4.4
14	5.3	e3.7	e2.9	e2.5	e2.6	e3.4	e6.8	92	140	e20	5.0	4.4
15	5.0	e3.7	e2.8	e2.4	e2.7	e3.5	e6.8	106	146	e18	5.1	5.1
16	4.8	e3.6	e2.8	e2.4	e2.8	e3.7	e7.0	131	137	e20	4.9	4.2
17	4.5	e3.6	e2.7	e2.4	e2.9	e3.7	e7.6	135	128	e18	4.8	4.1
18	4.4	e3.6	e2.6	e2.4	e2.8	e3.6	e7.6	154	122	e17	4.9	4.4
19	4.1	e3.6	e2.6	e2.4	e2.8	e3.6	e7.4	202	115	e16	5.0	5.0
20	e4.2	e3.5	e2.6	e2.4	e2.9	e3.7	e7.2	164	110	e15	5.1	5.0
21	e4.3	e3.5	e2.6	e2.4	e3.0	e3.9	e7.0	134	117	e15	4.9	5.0
22	e3.6	e3.5	e2.8	e2.3	e3.1	e4.0	e7.2	144	127	e15	4.8	4.8
23	e3.1	e3.5	e2.8	e2.4	e3.2	e4.5	e7.6	147	104	e13	4.7	5.2
24	e3.0	e3.4	e2.8	e2.4	e3.3	e4.5	e9.0	141	91	e12	4.5	7.7
25	e3.0	e3.2	e2.7	e2.4	e3.1	e4.5	13	158	82	e11	4.4	5.9
26	e2.9	e3.2	e2.6	e2.4	e3.0	e4.5	12	150	72	e11	4.6	5.5
27	e2.9	e3.2	e2.6	e2.4	e2.9	e4.5	12	112	68	e10	4.6	5.3
28	e2.9	e3.3	e2.6	e2.4	e2.7	e4.7	10	91	64	e10	4.4	5.2
29	e3.0	e3.2	e2.6	e2.4	e2.6	e4.8	9.6	83	57	e9.6	4.2	5.0
30	e2.9	e3.2	e2.5	e2.3	---	e4.8	9.2	84	52	e8.4	4.0	4.7
31	e3.3	---	e2.5	e2.4	---	e4.9	---	85	---	e8.2	3.9	---
TOTAL	145.3	106.3	88.1	74.7	79.0	112.3	224.1	2816.7	3790	667.2	165.8	137.8
MEAN	4.69	3.54	2.84	2.41	2.72	3.62	7.47	90.9	126	21.5	5.35	4.59
MAX	7.4	3.8	3.3	2.6	3.3	4.9	13	202	193	49	7.8	7.7
MIN	2.9	3.2	2.5	2.2	2.4	2.5	4.9	9.7	52	8.2	3.9	3.6
AC-FT	288	211	175	148	157	223	445	5590	7520	1320	329	273

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1996, BY WATER YEAR (WY)

MEAN	3.89	3.41	2.81	2.43	2.36	2.90	7.53	55.7	91.3	22.6	7.27	4.35
MAX	10.7	10.7	9.57	8.08	9.09	14.5	22.8	130	160	69.2	21.4	12.0
(WY)	1985	1985	1985	1986	1986	1986	1985	1948	1978	1995	1984	1984
MIN	1.90	1.84	1.35	1.01	.91	1.40	2.86	15.0	21.8	6.09	2.56	2.43
(WY)	1951	1964	1970	1979	1979	1971	1973	1995	1954	1954	1954	1956

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1948 - 1996

ANNUAL TOTAL	8341.2		8407.3									
ANNUAL MEAN	22.9		23.0									
HIGHEST ANNUAL MEAN												
LOWEST ANNUAL MEAN												
HIGHEST DAILY MEAN	274	Jun 17	202	May 19	274	Jun 17	1995					
LOWEST DAILY MEAN	e,a2.5	Dec 30	2.2	Jan 6		.90	Feb 22 1968					
ANNUAL SEVEN-DAY MINIMUM	2.6	Dec 25	2.3	Jan 2		.90	Feb 4 1979					
INSTANTANEOUS PEAK FLOW			255	May 18				370				
INSTANTANEOUS PEAK STAGE			4.91	May 18				b5.06				
ANNUAL RUNOFF (AC-FT)	16540		16680					12470				
10 PERCENT EXCEEDS	86		91					54				
50 PERCENT EXCEEDS	4.8		4.5					3.8				
90 PERCENT EXCEEDS	3.0		2.5					2.0				

e-Estimated.

a-Also occurred Dec 31.

b-Maximum gage height, 6.00 ft, Mar 30, 1968, backwater from ice.

## EAGLE RIVER BASIN

## 09066100 BIGHORN CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°38'24", long 106°17'34", in N<sup>1/2</sup> sec.12, T.5 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on left bank 0.3 mi upstream from U.S. Highway 6, 0.4 mi upstream from mouth, 4.5 mi east of Vail, and 8.5 mi northeast of Minturn.

DRAINAGE AREA.--4.54 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1963 to current year.

REVISED RECORDS.--WDR CO-88-2: Drainage area.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 8,625 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. No regulation or diversion upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	e2.1	e.94	e.82	e.87	e.82	e1.3	3.9	27	47	9.2	4.4
2	2.6	e1.9	e.94	e.82	e.86	e.84	e1.4	4.0	30	43	9.5	4.2
3	2.7	e1.7	e.94	e.82	e.86	e.90	e1.5	4.3	44	41	10	4.1
4	2.6	e1.6	e.94	e.82	e.86	e.90	e1.3	5.4	55	40	9.4	4.0
5	2.8	e1.5	e.94	e.80	e.86	e.90	e1.2	9.3	66	42	8.2	4.1
6	2.5	e1.4	e.94	e.78	e.86	e.90	e1.3	15	73	40	7.8	4.8
7	2.8	e1.4	e.92	e.80	e.80	e.90	e1.4	19	67	36	7.4	4.2
8	2.7	e1.4	e.92	e.82	e.84	e.90	e1.6	22	65	32	6.5	3.8
9	2.7	e1.4	e.92	e.84	e.86	e.90	e1.8	26	64	28	6.3	3.7
10	2.7	e1.3	e.92	e.84	e.86	e.90	e2.0	25	63	28	6.2	3.8
11	3.0	e1.3	e.92	e.84	e.86	e.90	e1.9	25	61	27	6.2	3.7
12	3.5	e1.3	e.92	e.84	e.86	e.90	e1.8	33	61	25	6.2	3.9
13	3.5	e1.3	e.92	e.84	e.90	e.90	e1.7	41	63	24	5.8	4.6
14	3.3	e1.2	e.92	e.84	e.90	e.90	e1.8	43	62	23	5.6	4.3
15	3.3	e1.1	e.90	e.84	e.90	e.90	e1.9	48	59	21	5.9	4.9
16	3.4	e1.1	e.90	e.84	e.90	e.88	e2.1	59	60	21	5.8	4.2
17	3.4	e1.1	e.90	e.84	e.90	e.87	e2.2	68	64	25	5.8	4.1
18	3.3	e1.1	e.90	e.84	e.90	e.86	e2.3	62	67	22	6.1	4.0
19	3.1	e1.0	e.90	e.84	e.90	e.86	e2.3	66	66	18	6.1	3.9
20	2.8	e.98	e.88	e.84	e.90	e.86	e2.4	58	65	18	5.8	3.8
21	2.7	e.98	e.86	e.82	e.96	e.88	e2.5	44	76	18	5.6	4.0
22	e2.5	e.98	e.86	e.80	e.96	e.90	e2.8	47	81	16	5.5	4.6
23	e2.2	e.98	e.86	e.84	e.96	e.98	e3.0	52	68	15	5.1	5.3
24	e2.2	e.98	e.86	e.86	e.96	e1.0	e4.0	47	58	14	5.0	7.1
25	e2.2	e.98	e.86	e.86	e.96	e.96	5.5	50	53	13	4.8	7.5
26	e2.2	e.96	e.86	e.86	e.90	e.98	5.2	46	50	11	5.0	6.5
27	e2.2	e.96	e.86	e.86	e.88	e1.0	5.1	34	52	11	4.8	5.6
28	e2.2	e.96	e.86	e.86	e.86	e1.1	4.6	25	49	10	4.8	5.8
29	e2.3	e1.0	e.86	e.86	e.84	e1.1	4.4	21	45	10	4.9	7.1
30	e2.2	e.98	e.86	e.80	---	e1.2	4.0	24	49	9.5	4.9	7.9
31	e2.2	---	e.84	e.88	---	e1.2	---	27	---	9.1	4.5	---
TOTAL	84.3	36.94	27.82	25.86	25.73	28.99	76.3	1053.9	1763	737.6	194.7	143.9
MEAN	2.72	1.23	.90	.83	.89	.94	2.54	34.0	58.8	23.8	6.28	4.80
MAX	3.5	2.1	.94	.88	.96	1.2	5.5	68	81	47	10	7.9
MIN	2.2	.96	.84	.78	.80	.82	1.2	3.9	27	9.1	4.5	3.7
AC-FT	167	73	55	51	51	58	151	2090	3500	1460	386	285

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1996, BY WATER YEAR (WY)

MEAN	2.74	1.68	1.03	.84	.83	.97	3.90	24.1	49.8	23.2	7.48	3.66
MAX	8.03	4.65	2.53	2.04	2.54	2.97	10.0	52.5	85.2	61.2	22.6	9.94
(WY)	1986	1985	1985	1986	1986	1986	1985	1984	1978	1983	1984	1984
MIN	1.01	.84	.63	.45	.30	.32	.86	8.09	17.7	5.61	3.27	1.12
(WY)	1964	1980	1977	1967	1964	1981	1964	1995	1966	1977	1994	1975

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1964 - 1996
ANNUAL TOTAL	4389.15	4199.04	
ANNUAL MEAN	12.0	11.5	
HIGHEST ANNUAL MEAN			10.0
LOWEST ANNUAL MEAN			18.6
HIGHEST DAILY MEAN	87	Jun 14	5.15
LOWEST DAILY MEAN	e.58	Jan 26	170
ANNUAL SEVEN-DAY MINIMUM	.60	Jan 20	Jun 26 1983
INSTANTANEOUS PEAK FLOW		93	a.10 Feb 8 1967
INSTANTANEOUS PEAK STAGE		3.78	b.20 Mar 4 1981
ANNUAL RUNOFF (AC-FT)	8710	8330	b.338 Jun 8 1985
10 PERCENT EXCEEDS	48	47	c.4.10 Jun 8 1985
50 PERCENT EXCEEDS	2.2	2.5	7270
90 PERCENT EXCEEDS	.62	.86	33
			2.3
			.64

e-Estimated.

a-Also occurred Jan 30, 1970.

b-From rating curve extended above 82 ft<sup>3</sup>/s.

c-Maximum gage height, 4.26 ft, Jun 8, 1985, backwater from debris.

## 09066150 PITKIN CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°38'37", long 106°18'07", in SW<sup>1/4</sup>SW<sup>1/4</sup> sec.1, T.5 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on left bank, 1,000 ft upstream from U.S. Highway 6, 1,200 ft upstream from mouth, 4.0 mi east of Vail, and 8 mi northeast of Minturn.

DRAINAGE AREA.--5.32 mi<sup>2</sup>.

PERIOD OF RECORD.--Annual maximum and occasional low-flow measurements water years 1965-66. October 1966 to current year.

REVISED RECORDS.--WRD Colo. 1971: 1967-70. WDR CO-88-2: Drainage area.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 8,525 ft above sea level, from topographic map. Oct. 1, 1964, to Sept. 30, 1966, crest-stage gage at datum 0.98 ft lower, at site 300 ft downstream.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	3.5	e2.1	e1.9	e1.7	e1.4	2.4	4.7	31	e60	11	4.4
2	4.6	3.2	e2.1	e1.9	e1.7	e1.3	3.2	4.7	35	e60	11	4.2
3	4.7	e3.3	e2.1	e1.9	e1.7	e1.3	3.8	4.9	50	e58	11	3.9
4	5.2	e3.2	e2.1	e1.9	e1.7	e1.3	3.8	5.9	63	e54	10	3.9
5	5.1	e3.0	e2.1	e1.9	e1.7	e1.2	3.7	8.9	77	e52	9.3	4.0
6	4.9	e2.8	e2.2	e1.9	e1.7	e1.3	3.8	13	91	e50	9.1	5.0
7	5.0	e2.6	e2.2	e1.9	e1.7	e1.3	4.1	17	96	e46	8.5	4.5
8	5.0	e2.6	e2.1	e1.9	e1.7	e1.3	4.2	21	99	e44	7.8	4.0
9	4.9	e2.6	e2.1	e1.9	e1.7	e1.3	5.5	24	94	37	7.5	3.7
10	4.8	e2.6	e2.1	e1.9	e1.6	e1.3	6.3	22	89	39	7.1	3.6
11	5.3	e2.6	e2.1	e1.9	e1.6	e1.3	6.5	24	82	40	7.0	3.5
12	6.1	e2.6	e2.1	e1.9	e1.6	e1.3	6.2	32	78	32	6.7	4.2
13	6.4	e2.6	e2.1	e1.9	e1.6	e1.4	6.0	40	81	31	6.3	5.8
14	5.8	e2.6	e2.1	e1.9	e1.6	e1.4	5.6	42	83	29	6.1	5.6
15	5.5	e2.5	e2.0	e1.9	e1.6	e1.4	5.1	47	74	26	6.1	7.6
16	5.5	e2.5	e2.0	e1.9	e1.6	e1.4	4.8	63	77	25	6.1	6.2
17	5.4	e2.5	e2.0	e1.9	e1.6	e1.4	4.7	75	85	33	6.1	6.0
18	5.1	e2.5	e2.0	e1.9	e1.6	e1.4	4.7	63	88	26	6.2	5.8
19	4.8	e2.5	e1.9	e1.8	e1.6	e1.4	4.7	79	88	23	6.1	5.8
20	4.4	e2.5	e1.9	e1.8	e1.7	e1.4	4.7	101	90	23	5.7	5.6
21	4.3	e2.4	e1.9	e1.8	e1.7	e1.5	4.4	79	e90	21	5.6	5.8
22	4.1	e2.3	e1.9	e1.8	e1.8	e1.6	4.2	71	e100	20	5.7	6.7
23	4.3	e2.2	e1.9	e1.8	e1.7	e1.6	3.9	55	e96	19	5.3	8.1
24	4.8	e2.2	e1.9	e1.7	e1.6	e1.7	5.0	50	e88	17	5.1	11
25	4.3	e2.2	e1.9	e1.7	e1.5	e1.7	6.5	55	e82	15	4.9	11
26	3.8	e2.2	e1.9	e1.7	e1.5	e1.8	5.8	53	e74	14	4.9	9.6
27	3.7	e2.2	e1.9	e1.7	e1.5	e1.8	5.8	40	e70	14	5.0	8.3
28	3.5	e2.2	e1.9	e1.7	e1.5	1.8	5.7	30	e66	13	5.0	8.7
29	3.4	e2.2	e1.9	e1.7	e1.4	1.9	5.3	26	e62	13	4.8	10
30	3.3	e2.2	e1.9	e1.7	--	2.0	5.0	28	e60	12	4.6	10
31	3.3	--	e1.9	e1.7	--	2.2	--	31	--	12	4.5	--
TOTAL	146.1	77.1	62.3	56.8	47.2	46.4	145.4	1210.1	2339	958	210.1	186.5
MEAN	4.71	2.57	2.01	1.83	1.63	1.50	4.85	39.0	78.0	30.9	6.78	6.22
MAX	6.4	3.5	2.2	1.9	1.8	2.2	6.5	101	100	60	11	11
MIN	3.3	2.2	1.9	1.7	1.4	1.2	2.4	4.7	31	12	4.5	3.5
AC-FT	290	153	124	113	94	92	288	2400	4640	1900	417	370

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1996, BY WATER YEAR (WY)

MEAN	3.97	2.49	1.77	1.43	1.35	1.44	4.03	24.2	54.5	31.1	9.76	5.15
MAX	9.43	3.84	3.28	3.84	3.94	3.85	6.98	44.8	101	94.5	31.1	11.2
(WY)	1985	1982	1986	1986	1986	1985	1992	1974	1978	1984	1983	1984
MIN	1.49	1.26	.94	.58	.70	.87	1.44	8.48	23.2	7.73	4.15	2.78
(WY)	1967	1980	1967	1967	1981	1981	1973	1995	1989	1994	1969	1988

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1967 - 1996
ANNUAL TOTAL	6391.7	5485.0	
ANNUAL MEAN	17.5	15.0	
HIGHEST ANNUAL MEAN			11.8
LOWEST ANNUAL MEAN			22.7
HIGHEST DAILY MEAN	158	Jul 11	6.77
LOWEST DAILY MEAN	1.0	Jan 26	1984
ANNUAL SEVEN-DAY MINIMUM	1.1	Jan 23	1989
INSTANTANEOUS PEAK FLOW		a130	
INSTANTANEOUS PEAK STAGE		a <sub>2</sub> .81	
ANNUAL RUNOFF (AC-FT)	12680	10880	8540
10 PERCENT EXCEEDS	75	59	38
50 PERCENT EXCEEDS	3.3	4.4	3.2
90 PERCENT EXCEEDS	1.5	1.6	1.1

e-Estimated.

a-Maximum gage height and/or discharge may have occurred during period of estimated record in June.

b-Maximum gage height, 3.75 ft, Jul 13, 1995, backwater from debris.

## EAGLE RIVER BASIN

**09066200 BOOTH CREEK NEAR MINTURN, CO**

LOCATION.--Lat 39°38'54", long 106°19'21", in NE<sup>1/4</sup>SE<sup>1/4</sup> of sec.3, T.5 S., R.80 W., Eagle County, Hydrologic Unit 14010003, near center of span on downstream side of old Highway 6 bridge pier, 100 ft upstream from frontage road to I-70, 0.2 mi upstream from mouth, 3.0 mi northeast of Vail, and 7.0 mi northeast of Minturn.

DRAINAGE AREA.--6.02 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1964 to current year.

REVISED RECORDS.--WDR CO-89-2: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 8,325 ft above sea level, from topographic map. Prior to June 4, 1984, gage at site 1,000 ft upstream at different datum (gage destroyed by rock slide).

REMARKS.--Records good except for estimated daily discharges, which are poor. No diversion or regulation upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	e2.6	e1.6	e1.5	e1.3	e1.3	3.1	6.4	43	62	6.5	1.5
2	4.6	e2.5	e1.6	e1.5	e1.3	e1.3	3.8	6.2	49	59	6.2	1.4
3	4.8	e2.3	e1.6	e1.5	e1.3	e1.3	4.0	6.8	66	58	5.9	1.3
4	5.6	e2.2	e1.6	e1.5	e1.3	e1.3	3.8	9.0	83	60	5.6	1.3
5	5.6	e2.1	e1.6	e1.5	e1.3	e1.3	3.6	17	97	59	5.0	1.4
6	5.8	e2.1	e1.6	e1.5	e1.3	e1.3	4.0	29	102	54	4.9	2.1
7	6.3	e2.1	e1.6	e1.5	e1.3	e1.3	4.6	37	104	50	4.6	1.8
8	6.3	e2.1	e1.6	e1.5	e1.3	e1.3	5.4	44	101	45	4.1	1.5
9	5.8	e2.0	e1.6	e1.5	e1.3	e1.3	8.0	48	96	40	3.7	1.3
10	5.7	e2.0	e1.6	e1.5	e1.3	e1.3	9.8	45	93	39	3.5	1.3
11	7.0	e2.0	e1.6	e1.5	e1.3	e1.3	11	49	89	37	3.3	1.2
12	8.2	e1.9	e1.6	e1.5	e1.3	e1.3	9.2	61	83	34	3.2	1.9
13	8.7	e1.8	e1.6	e1.4	e1.3	e1.3	8.3	69	84	31	2.9	3.2
14	7.8	e1.8	e1.6	e1.4	e1.3	e1.3	6.5	72	80	29	2.9	2.5
15	7.7	e1.8	e1.6	e1.4	e1.3	e1.3	6.1	77	77	26	2.9	4.9
16	7.7	e1.8	e1.6	e1.4	e1.3	e1.3	5.9	85	78	25	2.7	3.3
17	7.5	e1.8	e1.6	e1.4	e1.3	e1.3	6.3	97	77	30	2.6	3.1
18	6.5	e1.8	e1.5	e1.3	e1.3	e1.3	5.8	82	80	24	2.7	3.1
19	5.7	e1.8	e1.5	e1.3	e1.3	e1.3	5.2	95	76	21	2.6	3.5
20	5.0	e1.8	e1.5	e1.3	e1.3	e1.3	4.7	81	73	20	2.4	3.3
21	4.6	e1.8	e1.5	e1.3	e1.3	e1.3	4.4	60	93	18	2.5	3.5
22	3.9	e1.8	e1.5	e1.3	e1.3	e1.3	1.7	4.0	68	102	16	2.5
23	e3.8	e1.7	e1.5	e1.3	e1.3	e1.3	2.1	4.5	71	90	15	5.7
24	e3.8	e1.6	e1.5	e1.3	e1.3	e1.3	2.0	6.8	81	14	2.1	9.3
25	e3.7	e1.6	e1.5	e1.3	e1.3	e1.3	1.9	11	72	75	12	2.0
26	e3.6	e1.6	e1.5	e1.3	e1.3	e1.3	1.7	9.2	71	75	10	6.6
27	e3.3	e1.6	e1.5	e1.2	e1.3	e1.3	1.8	9.0	51	75	9.2	2.1
28	e3.1	e1.6	e1.5	e1.3	e1.3	e1.3	1.9	8.1	40	70	8.5	2.0
29	e3.2	e1.6	e1.5	e1.3	e1.3	e1.3	2.1	7.4	36	66	8.8	1.8
30	e3.0	e1.6	e1.5	e1.3	---	e1.3	2.4	6.8	40	68	8.1	7.9
31	e2.9	---	e1.5	e1.3	---	e1.3	2.7	---	42	---	7.0	1.6
TOTAL	165.9	56.8	48.2	43.1	37.7	47.6	190.3	1631.4	2426	929.6	100.9	111.6
MEAN	5.35	1.89	1.55	1.39	1.30	1.54	6.34	52.6	80.9	30.0	3.25	3.72
MAX	8.7	2.6	1.6	1.5	1.3	2.7	11	97	104	62	6.5	9.3
MIN	2.9	1.6	1.5	1.2	1.3	1.3	3.1	6.2	43	7.0	1.6	1.2
AC-FT	329	113	96	85	75	94	377	3240	4810	1840	200	221

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1996, BY WATER YEAR (WY)

MEAN	2.84	2.02	1.27	1.01	.97	1.34	5.54	31.2	65.0	26.1	5.82	3.04
MAX	8.30	7.17	3.54	2.48	2.97	5.72	14.2	57.8	123	70.4	14.4	7.29
(WY)	1985	1985	1985	1985	1985	1986	1986	1974	1982	1983	1984	1984
MIN	.88	.66	.67	.37	.39	.41	1.39	10.0	23.5	3.65	1.45	.97
(WY)	1975	1965	1975	1977	1981	1981	1973	1995	1966	1994	1994	1974

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1965 - 1996
ANNUAL TOTAL	5011.27	5789.1	
ANNUAL MEAN	13.7	15.8	12.2
HIGHEST ANNUAL MEAN			19.0
LOWEST ANNUAL MEAN			6.66
HIGHEST DAILY MEAN	117	Jun 17	1982
LOWEST DAILY MEAN	e .80	Jan 26	1977
ANNUAL SEVEN-DAY MINIMUM	.85	Jan 20	1984
INSTANTANEOUS PEAK FLOW			1984
INSTANTANEOUS PEAK STAGE			1984
ANNUAL RUNOFF (AC-FT)	9940	11480	8830
10 PERCENT EXCEEDS	55	68	41
50 PERCENT EXCEEDS	3.0	2.9	2.3
90 PERCENT EXCEEDS	.86	1.3	.74

e-Estimated.

a-Also occurred Sep 11.

b-Also occurred Jan 29, 1970, Feb 10-11, 1981.

c-Maximum gage height, 3.30 ft, Jun 21.

d-Maximum gage height, 4.62 ft, Jun 18, 1963, backwater from debris.

## 09066300 MIDDLE CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°38'45", long 106°22'54", in sec.6, T.5 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on right bank 200 ft upstream from Interstate Highway 70, 0.2 mi upstream from mouth, and 5.0 mi northeast of Minturn.

DRAINAGE AREA.--5.94 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1964 to current year.

REVISED RECORDS.--WDR CO-88-2: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 8,200 ft above sea level, from topographic map. Prior to Oct. 1, 1977 at site 700 ft upstream, at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. No diversion or regulation upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	e1.8	e.78	e.52	e.56	e.50	e1.0	3.3	25	33	3.0	1.0
2	2.2	e1.4	e.76	e.52	e.47	e1.1	3.4	26	32	2.8	.97	
3	2.0	e1.4	e.70	e.53	e.52	e.47	e1.2	3.5	29	30	2.7	.93
4	2.0	e1.4	e.68	e.53	e.52	e.47	e1.2	4.3	33	28	2.6	.90
5	2.0	e1.2	e.66	e.53	e.52	e.47	e1.2	6.1	41	27	2.5	.96
6	1.9	e1.2	e.66	e.53	e.52	e.47	e1.3	8.2	51	23	2.3	1.6
7	2.0	e1.1	e.66	e.53	e.50	e.47	e1.4	9.9	55	20	2.2	1.5
8	2.0	e1.0	e.66	e.53	e.50	e.45	1.5	12	57	18	2.1	1.1
9	1.9	e.98	e.66	e.53	e.52	e.44	2.2	13	56	16	2.1	.98
10	1.9	e.98	e.66	e.53	e.53	e.44	2.6	13	55	14	2.0	.91
11	2.1	e.96	e.66	e.53	e.53	e.45	2.7	15	54	13	2.0	.91
12	2.4	e.94	e.66	e.53	e.53	e.45	2.5	18	54	11	1.9	1.4
13	2.4	e.90	e.64	e.53	e.53	e.45	e2.4	20	55	10	1.8	2.0
14	2.1	e.90	e.60	e.53	e.53	e.45	e2.3	23	54	9.4	1.8	1.4
15	2.2	e.90	e.60	e.53	e.53	e.45	e2.2	26	56	8.4	1.8	2.5
16	2.3	e.90	e.60	e.53	e.54	e.45	e2.2	31	58	7.9	1.7	1.6
17	2.2	e.90	e.60	e.53	e.54	e.45	e2.2	33	62	8.4	1.6	1.5
18	2.1	e.84	e.60	e.53	e.54	e.45	e2.2	35	69	7.2	1.6	1.5
19	e2.0	e.84	e.60	e.53	e.54	e.45	e2.1	39	67	6.6	1.8	1.5
20	e1.6	e.84	e.60	e.53	e.54	e.45	e1.9	38	71	6.0	1.8	1.5
21	e1.7	e.84	e.60	e.53	e.55	e.45	e1.8	34	79	5.6	1.6	1.5
22	e1.6	e.84	e.56	e.53	e.56	e.47	e1.7	34	83	5.1	1.4	1.7
23	e1.7	e.84	e.56	e.50	e.58	e.50	e1.7	34	75	4.7	1.3	1.8
24	e1.8	e.80	e.56	e.52	e.58	e.54	e2.2	32	64	4.5	1.3	2.5
25	e1.9	e.74	e.56	e.53	e.58	e.60	3.4	34	54	4.3	1.2	2.0
26	e1.8	e.74	e.56	e.53	e.58	e.68	3.2	34	48	4.1	1.2	1.8
27	e1.8	e.74	e.56	e.53	e.56	e.71	3.4	30	47	3.8	1.3	1.6
28	e1.7	e.78	e.56	e.53	e.52	e.73	3.6	26	43	3.6	1.3	1.7
29	e1.7	e.78	e.56	e.53	e.50	e.80	3.4	25	37	3.8	1.1	1.9
30	e1.7	e.78	e.56	e.52	---	e.87	3.4	25	35	3.7	1.0	1.8
31	e1.8	---	e.54	---	e.95	---	25	---	3.2	1.0	---	
TOTAL	60.8	29.26	19.22	16.37	15.58	16.45	65.2	687.7	1593	375.3	55.8	44.96
MEAN	1.96	.98	.62	.53	.54	.53	2.17	22.2	53.1	12.1	1.80	1.50
MAX	2.4	1.8	.78	.54	.58	.95	3.6	39	83	33	3.0	2.5
MIN	1.6	.74	.54	.50	.50	.44	1.0	3.3	25	3.2	1.0	.90
AC-FT	121	58	38	32	31	33	129	1360	3160	744	111	89

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1996, BY WATER YEAR (WY)

MEAN	1.21	.82	.49	.40	.37	.40	1.33	11.9	35.1	13.8	3.29	1.73
MAX	3.90	3.10	1.75	2.45	2.34	2.16	6.53	25.5	53.1	39.5	14.0	7.18
(WY)	1985	1983	1986	1986	1986	1985	1985	1984	1984	1995	1983	1979
MIN	.36	.030	.000	.000	.000	.000	.26	3.41	14.3	2.30	.86	.36
(WY)	1965	1965	1965	1965	1965	1976	1995	1966	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1965 - 1996
ANNUAL TOTAL	2872.24	2979.64	
ANNUAL MEAN	7.87	8.14	5.90
HIGHEST ANNUAL MEAN			11.3
LOWEST ANNUAL MEAN			2.52
HIGHEST DAILY MEAN	65	Jul 11	93
LOWEST DAILY MEAN	.21	Apr 3	b.00
ANNUAL SEVEN-DAY MINIMUM	.27	Jan 1	.00
INSTANTANEOUS PEAK FLOW		91	Jun 20
INSTANTANEOUS PEAK STAGE		2.69	c,d 2.65
ANNUAL RUNOFF (AC-FT)	5700	5910	4270
10 PERCENT EXCEEDS	36	33	20
50 PERCENT EXCEEDS	1.2	1.5	.92
90 PERCENT EXCEEDS	.27	.52	.20

e-Estimated.

a-Also occurred Mar 10.

b-No flow at times most years.

c-Maximum gage height, 3.28 ft, Jun 25, 1983, backwater from debris.

d-Datum then in use.

## EAGLE RIVER BASIN

**09066310 GORE CREEK AT LOWER STATION, AT VAIL, CO**

LOCATION.--Lat 39°38'28", long 106°23'37", in NW<sup>1/4</sup>NW<sup>1/4</sup> sec.7, T.5 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on right bank 40 ft south of the water treatment plant at Vail, 0.1 mi upstream from Red Sandstone Creek, and 0.6 mi downstream from Middle Creek.

DRAINAGE AREA.--77.1 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1988 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 8,060 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. No regulation or diversion upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	e29	e22	20	18	e13	39	76	452	557	76	24
2	33	e27	e22	20	e17	13	47	80	497	510	73	24
3	32	e25	e22	19	e17	e13	51	86	634	479	74	23
4	37	e28	22	19	e17	14	46	107	776	474	69	22
5	36	e26	24	e18	e17	14	45	158	964	488	62	24
6	34	27	25	e16	15	14	48	211	1110	457	59	32
7	36	27	24	e17	15	14	56	254	1090	398	56	30
8	38	25	23	e18	15	14	62	299	1110	353	51	25
9	35	26	22	e18	16	15	86	343	1100	308	48	24
10	35	25	21	18	16	16	99	332	1070	296	46	23
11	38	27	e21	e18	e16	18	103	352	1000	284	44	22
12	43	26	22	e18	e16	19	87	450	981	258	42	26
13	45	28	23	e18	e16	18	80	531	1010	242	40	33
14	40	31	20	e18	17	17	68	575	979	225	38	32
15	39	e27	e22	e18	16	18	62	636	953	206	39	46
16	39	e25	e22	18	16	19	65	788	959	195	38	35
17	39	26	e22	18	16	18	69	903	969	220	36	31
18	37	e27	e21	e18	17	17	68	856	986	199	37	32
19	36	e26	e21	e18	16	18	63	1020	944	171	40	33
20	30	e25	e21	e18	16	19	57	919	916	162	38	33
21	32	24	e21	e17	17	21	54	704	1110	152	35	32
22	32	25	e21	17	20	e21	51	746	1160	138	35	37
23	e27	24	e22	18	18	e22	52	777	937	127	33	44
24	e27	23	e22	e18	19	e23	74	712	809	119	31	66
25	e29	23	e22	17	17	e23	106	769	715	110	30	62
26	31	23	e21	e18	16	e22	94	755	663	102	30	53
27	30	23	e21	e18	15	e22	96	582	674	95	31	44
28	28	e24	e21	e18	e14	25	87	476	627	89	30	44
29	28	25	e20	17	e14	28	78	427	576	90	30	51
30	29	24	e20	16	---	30	75	437	587	87	27	53
31	29	---	e20	17	---	33	449	---	80	25	---	---
TOTAL	1060	771	673	554	475	591	2068	15810	26358	7671	1343	1060
MEAN	34.2	25.7	21.7	17.9	16.4	19.1	68.9	510	879	247	43.3	35.3
MAX	45	31	25	20	20	33	106	1020	1160	557	76	66
MIN	27	23	20	16	14	13	39	76	452	80	25	22
AC-FT	2100	1530	1330	1100	942	1170	4100	31360	52280	15220	2660	2100

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1996, BY WATER YEAR (WY)

MEAN	23.1	17.9	13.6	11.0	10.6	14.2	50.0	319	618	236	56.7	30.1
MAX	34.2	25.7	21.7	17.9	16.4	19.1	87.0	510	906	658	124	40.9
(WY)	1996	1996	1996	1996	1996	1996	1989	1996	1993	1995	1995	1993
MIN	16.8	12.9	8.46	6.61	7.73	9.74	25.5	99.9	337	55.8	25.4	19.3
(WY)	1990	1989	1995	1995	1990	1991	1991	1995	1994	1994	1994	1988

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1988 - 1996
ANNUAL TOTAL	57931.6	58434	
ANNUAL MEAN	159	160	117
HIGHEST ANNUAL MEAN			166
LOWEST ANNUAL MEAN			77.6
HIGHEST DAILY MEAN	1340	Jun 17	1340
LOWEST DAILY MEAN	a5.9	Jan 25	a5.9
ANNUAL SEVEN-DAY MINIMUM	6.0	Jan 23	6.0
INSTANTANEOUS PEAK FLOW		1360	c1650
INSTANTANEOUS PEAK STAGE		10.79	c11.23
ANNUAL RUNOFF (AC-FT)	114900	115900	84710
10 PERCENT EXCEEDS	667	635	408
50 PERCENT EXCEEDS	29	32	23
90 PERCENT EXCEEDS	7.3	17	9.8

e-Estimated.

a-Also occurred Jan 26 and 28.

b-Also occurred Mar 2-3.

c-Also occurred Jun 17, 1995.

## 09066400 RED SANDSTONE CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°40'58", long 106°24'03", in sec.25, T.4 S., R.81 W., (projected), Eagle County, Hydrologic Unit 14010003, on left bank 150 ft upstream from road culvert, 1,400 ft upstream from Indian Creek, and 6.8 mi north of Minturn.

DRAINAGE AREA.--7.32 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1963 to current year.

REVISED RECORDS.--WDR CO-88-2: Drainage area.

GAGE.--Water-stage recorder, and concrete control. Elevation of gage is 9,212 ft above sea level, from topographic map.

REMARKS.-- Records fair except for estimated daily discharges, which are poor. No regulation or diversion upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	2.2	e1.7	e1.0	e1.1	e1.2	e1.5	8.0	52	15	3.6	1.4
2	3.2	2.3	e1.6	e1.0	e1.1	e1.2	e1.5	8.3	56	15	3.3	1.4
3	3.2	e1.9	e1.6	e.90	e1.1	e1.1	e1.5	9.3	65	14	3.3	1.3
4	3.1	e1.8	e1.6	e.80	e1.0	e1.1	e1.6	13	72	15	3.2	1.3
5	2.8	e1.8	e1.5	e.90	e1.0	e1.1	e1.6	20	83	16	3.0	1.4
6	3.7	e1.8	e1.5	e1.0	e1.1	e1.2	e1.7	30	76	16	2.8	2.6
7	3.2	e1.8	e1.5	e1.0	e1.1	e1.2	e2.0	39	68	15	2.7	2.2
8	3.0	e1.7	e1.5	e1.0	e1.1	e1.2	e2.1	48	63	16	2.7	1.6
9	2.8	e1.8	e1.5	e1.0	e1.1	e1.2	e2.2	56	57	15	2.6	1.5
10	2.8	e1.7	e1.5	e1.1	e1.1	e1.2	e2.4	56	51	14	2.5	1.4
11	3.0	e1.6	e1.4	e1.1	e1.2	e1.2	e2.6	64	46	12	2.4	1.4
12	3.3	e1.6	e1.4	e1.0	e1.2	e1.2	e2.7	80	42	11	2.3	1.7
13	3.4	e1.6	e1.4	e1.0	e1.1	e1.2	e2.9	89	41	10	2.3	2.9
14	3.1	e1.5	e1.4	e1.0	e1.1	e1.3	e3.1	95	38	9.2	2.2	2.1
15	3.0	e1.5	e1.4	e1.1	e1.1	e1.2	e3.5	101	42	8.5	2.2	4.2
16	3.0	e1.4	e1.3	e1.0	e1.0	e1.3	e3.7	e110	66	8.3	2.2	2.2
17	2.9	e1.4	e1.3	e1.0	e1.1	e1.2	e4.1	e140	63	10	2.0	2.1
18	2.8	e1.5	e1.3	e1.0	e1.1	e1.2	e4.5	e140	58	8.0	2.1	2.4
19	2.6	e1.5	e1.4	e1.0	e1.2	e1.2	e4.5	e150	52	7.0	2.2	2.5
20	3.7	e1.5	e1.4	e1.0	e1.2	e1.3	4.6	e120	50	6.3	2.3	2.6
21	2.8	e1.6	e1.3	e1.1	e1.1	e1.3	4.4	e110	51	5.8	2.4	3.0
22	2.4	e1.6	e1.3	e1.1	e1.1	e1.3	4.2	e94	47	5.3	2.3	3.0
23	4.2	e1.6	e1.2	e1.1	e1.1	e1.2	4.7	e80	41	5.0	2.3	2.8
24	3.7	e1.6	e1.2	e1.0	e1.2	e1.2	7.7	e78	36	4.8	2.0	3.9
25	2.6	e1.7	e1.2	e1.0	e1.2	e1.3	9.9	85	31	4.7	1.9	3.2
26	2.1	e1.7	e1.2	e1.0	e1.2	e1.3	8.7	76	27	4.4	1.8	3.0
27	1.9	e1.6	e1.1	e1.1	e1.2	e1.4	9.2	62	26	4.2	1.9	2.6
28	1.9	e1.6	e1.1	e1.1	e1.2	e1.4	9.6	52	24	4.0	1.9	3.4
29	2.0	e1.6	e1.1	e1.0	e1.1	e1.4	8.3	50	20	4.4	1.7	3.7
30	2.2	e1.7	e1.0	e1.1	---	e1.4	7.8	52	18	4.3	1.5	3.2
31	2.2	---	e1.0	e1.1	---	e1.5	---	52	---	3.8	1.4	---
TOTAL	89.8	50.2	41.9	31.60	32.5	38.7	128.8	2167.6	1462	292.0	73.0	72.0
MEAN	2.90	1.67	1.35	1.02	1.12	1.25	4.29	69.9	48.7	9.42	2.35	2.40
MAX	4.2	2.3	1.7	1.1	1.2	1.5	9.9	150	83	16	3.6	4.2
MIN	1.9	1.4	1.0	.80	1.0	1.1	1.5	8.0	18	3.8	1.4	1.3
AC-FT	178	100	83	63	64	77	255	4300	2900	579	145	143

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1996, BY WATER YEAR (WY)

MEAN	2.00	1.53	1.22	1.04	.98	1.10	3.48	29.4	50.6	12.6	3.60	2.21
MAX	5.14	3.80	2.60	2.14	2.14	1.90	6.60	69.9	92.0	44.0	15.0	5.57
(WY)	1985	1985	1985	1985	1985	1985	1971	1996	1983	1983	1983	1984
MIN	.92	.57	.51	.52	.48	.46	1.47	6.85	16.3	3.22	1.59	.98
(WY)	1989	1977	1977	1987	1987	1987	1973	1995	1966	1977	1987	1987

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1964 - 1996
ANNUAL TOTAL	3923.54	4480.10	
ANNUAL MEAN	10.7	12.2	9.15
HIGHEST ANNUAL MEAN			14.9
LOWEST ANNUAL MEAN			4.31
HIGHEST DAILY MEAN	148	Jun 15	e150 May 19
LOWEST DAILY MEAN	.84	Feb 16	.80 Jan 4
ANNUAL SEVEN-DAY MINIMUM	.88	Feb 15	.94 Dec 30
INSTANTANEOUS PEAK FLOW		194 May 19	223 Jun 17 1995
INSTANTANEOUS PEAK STAGE		a4.51 May 19	b4.58 Jun 17 1995
ANNUAL RUNOFF (AC-FT)	7780	8890	6630
10 PERCENT EXCEEDS	44	51	29
50 PERCENT EXCEEDS	1.9	2.1	1.8
90 PERCENT EXCEEDS	1.0	1.1	.80

e-Estimated.

a-Maximum recorded gage height from partial day record.

b-Maximum gage height, 5.18 ft, Apr 17, 1987, backwater from ice.

## EAGLE RIVER BASIN

**09066510 GORE CREEK AT MOUTH NEAR MINTURN, CO**

LOCATION.--Lat 39°36'34", long 106°26'50", in NE<sup>1/4</sup>NW<sup>1/4</sup> sec.22, T.5 S., R.81W., Eagle County, Hydrologic Unit 14010003, on left bank 0.1 mi upstream from the confluence with Eagle River and 2 mi northwest of Minturn.

DRAINAGE AREA.-- 102 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--October 1995 to September 1996

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 7,730 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversion upstream from station for Vail water treatment plant.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	e37	e28	e23	e19	e18	e70	116	558	586	98	33
2	50	e34	e28	e22	e19	e18	e75	123	601	536	94	32
3	47	e33	e28	e20	e19	e18	e81	131	741	505	94	31
4	54	e35	e28	e20	e19	e19	e72	160	916	499	90	29
5	51	e33	e30	e19	e18	e19	e70	234	1120	512	83	31
6	47	e34	e31	e17	e17	e18	e76	310	1300	480	77	40
7	52	e34	e29	e18	e17	e16	e89	360	1270	424	73	40
8	53	e31	e28	e19	e18	e17	e100	417	1270	388	68	34
9	49	e32	e27	e19	e18	e19	e121	483	1250	346	65	32
10	46	e31	e26	e19	e18	e20	e130	476	1230	331	62	30
11	51	e33	e26	e19	e19	e23	e134	498	1170	320	60	29
12	59	e32	e27	e19	e20	e25	e117	619	1140	296	57	33
13	63	e35	e28	e19	e20	e24	e104	724	1150	278	55	44
14	54	e38	e25	e19	e20	e23	e95	784	1140	261	53	43
15	54	e35	e26	e19	e20	e24	e88	875	1100	242	52	61
16	53	e32	e26	e19	e20	e26	e94	1040	1090	232	52	48
17	52	e33	e26	e19	e21	e26	e99	1210	1090	257	50	43
18	49	e34	e25	e19	e22	e24	e96	1130	1110	236	50	44
19	48	e33	e25	e19	e21	e22	e93	1330	1060	207	54	47
20	41	e32	e25	e19	e21	e23	e91	1240	1030	194	e47	45
21	43	e31	e25	e19	e20	e28	e84	948	1210	183	48	44
22	44	e32	e25	e19	e24	e35	e81	974	1270	166	47	e60
23	e39	e31	e26	e18	e20	e40	e83	1010	1050	153	45	e70
24	e39	e30	e26	e18	e21	e41	e106	913	884	143	43	79
25	e42	e30	e26	e18	e21	e42	e146	977	793	133	41	76
26	43	e30	e25	e19	e20	e41	e136	964	725	123	41	67
27	e38	e30	e25	e19	e18	e45	147	733	728	117	41	58
28	e36	e31	e25	e19	e18	e50	135	606	681	110	40	57
29	e36	e32	e24	e19	e18	e54	121	540	616	111	39	63
30	e37	e30	e24	e18	---	e58	116	543	625	111	36	66
31	e37	---	e24	e18	---	e64	---	555	---	102	34	---
TOTAL	1460	978	817	590	566	920	3050	21023	29918	8582	1789	1409
MEAN	47.1	32.6	26.4	19.0	19.5	29.7	102	678	997	277	57.7	47.0
MAX	63	38	31	23	24	64	147	1330	1300	586	98	79
MIN	36	30	24	17	17	16	70	116	558	102	34	29
AC-FT	2900	1940	1620	1170	1120	1820	6050	41700	59340	17020	3550	2790

## SUMMARY STATISTICS

FOR 1996 WATER YEAR

ANNUAL TOTAL	71102
ANNUAL MEAN	194
HIGHEST DAILY MEAN	1330 May 19
LOWEST DAILY MEAN	e16 Mar 7
ANNUAL SEVEN-DAY MINIMUM	18 Feb 4
INSTANTANEOUS PEAK FLOW	1540 May 19
INSTANTANEOUS PEAK STAGE	9.55 May 19
ANNUAL RUNOFF (AC-FT)	141000
10 PERCENT EXCEEDS	735
50 PERCENT EXCEEDS	44
90 PERCENT EXCEEDS	19

e-Estimated.

**09066510 GORE CREEK AT MOUTH NEAR MINTURN, CO--Continued**  
**(National Water-Quality Assessment Program station)**

**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--October 1995 to September 1996.

REMARKS.--Upper Colorado River Basin National Water Quality Assessment Program station (NAWQA).

**WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996**

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC DUCT- ANCE	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CACO3)	MAGNE- SIUM, DIS- SOLVED (MG/L AS CA)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	
OCT 24...	1010	32		320	8.3	0.0	11.9	150	46	7.8	5.3	0.2	1.1
NOV 21...	0945	31		325	8.1	0.5	11.4	150	46	7.6	5.5	0.2	1.2
JAN 18...	1100	15		406	8.0	0.0	11.8	190	58	9.8	11	0.4	1.5
FEB 21...	1215	22		404	8.5	0.5	11.5	180	56	9.3	12	0.4	1.9
MAR 21...	0910	24		415	8.3	1.0	11.6	180	55	9.2	14	0.5	1.7
27...	1400	50		418	9.0	5.5	10.6	180	57	8.9	14	0.5	1.8
APR 17...	1220	99		310	8.5	4.0	10.6	130	43	6.6	9.3	0.3	1.0
26...	1015	123		295	8.4	3.0	11.5	130	41	6.2	8.9	0.3	0.9
MAY 07...	1315	347		205	8.3	5.5	9.7	92	30	4.2	3.9	0.2	0.7
15...	1555	802		147	8.1	7.0	9.5	67	22	3.0	2.3	0.1	0.6
17...	2355	1200		123	7.6	3.5	10.2	58	19	2.6	1.9	0.1	0.6
22...	1055	897		140	7.7	4.0	10.0	64	21	2.9	2.1	0.1	0.5
JUN 20...	1050	926		103	8.1	5.0	10.4	47	15	2.4	1.3	0.1	0.4
JUL 19...	0905	210		155	8.0	8.0	9.4	70	22	3.6	2.1	0.1	0.5
AUG 23...	0835	48		295	8.4	9.5	9.0	140	42	7.3	4.7	0.2	1.1
SEP 11...	0745	28		350	7.8	9.0	8.9	160	50	8.4	4.6	0.2	1.1
<hr/>													
DATE		BICAR- <sup>a</sup> BONATE WATER DIS IT FIELD MG/L AS HCO3	CAR- <sup>b</sup> BONATE WATER DIS IT FIELD MG/L AS CO3	ALKA- <sup>c</sup> LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	ALKA- <sup>d</sup> LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	
OCT 24...		132	--	108	--	40	8.1	0.2	5.4	193	181	0.26	
NOV 21...		132	--	108	--	39	8.0	0.1	4.7	190	181	0.26	
JAN 18...		144	--	118	--	50	18	0.2	5.9	232	229	0.32	
FEB 21...		135	1	111	--	49	20	0.1	4.9	236	227	0.32	
MAR 21...		146	--	120	--	45	24	0.1	4.3	241	230	0.33	
27...		130	9	122	--	46	24	0.1	4.4	248	235	0.34	
APR 17...		118	5	106	--	22	17	0.1	5.5	175	169	0.24	
26...		123	--	101	--	19	16	0.1	5.9	160	160	0.22	
MAY 07...		96	--	79	--	11	6.3	<0.1	5.8	130	110	0.18	
15...		71	--	58	--	6.0	2.9	<0.1	5.5	94	78	0.13	
17...		62	--	51	--	4.6	2.3	0.1	5.2	82	67	0.11	
22...		68	--	56	--	5.9	2.5	<0.1	5.4	85	74	0.12	
JUN 20...		--	--	--	45	4.4	0.4	<0.1	4.4	64	56	0.09	
JUL 19...		77	--	63	--	13	2.4	<0.1	4.2	83	87	0.11	
AUG 23...		--	--	103	--	35	5.7	<0.1	5.2	167	165	0.23	
SEP 11...		123	--	101	--	48	6.3	0.1	4.0	201	185	0.27	

a-Field dissolved bicarbonate, determined by incremental titration method.

b-Field dissolved carbonate, determined by incremental titration method.

c-Lab total dissolved alkalinity, determined by incremental titration method.

d-Lab total dissolved alkalinity, determined by fixed-end-point method

## EAGLE RIVER BASIN

**09066510 GORE CREEK AT MOUTH NEAR MINTURN, CO--Continued**  
**(National Water-Quality Assessment Program station)**

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE SOLVED (MG/L AS N)	NITRO- GEN, NO <sub>2</sub> +NO <sub>3</sub> SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC SUS- PENDED SOLVED (MG/L AS C)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 24...	16.7	<0.01	0.44	<0.015	<0.2	<0.2	0.04	0.03	0.04	1.4	0.1
NOV 21...	15.9	<0.01	0.78	<0.015	<0.2	<0.2	0.10	0.09	0.08	1.3	0.2
JAN 18...	9.71	<0.01	0.89	<0.015	<0.2	<0.2	0.13	0.12	0.11	1.3	0.2
FEB 21...	14.1	0.03	1.3	<0.015	0.2	<0.2	0.21	0.22	0.21	1.7	0.8
MAR 21...	15.4	0.01	1.1	<0.015	0.3	<0.2	0.14	0.14	0.12	1.8	0.6
27...	33.5	0.01	1.3	<0.015	0.6	<0.2	0.26	0.24	0.19	2.3	3.8
APR 17...	46.6	<0.01	0.26	<0.015	0.8	<0.2	0.14	<0.01	0.01	2.2	0.3
26...	53.1	<0.01	0.28	0.02	0.7	<0.2	0.04	<0.01	<0.01	2.3	0.7
MAY 07...	122	<0.01	0.18	0.03	0.3	<0.2	0.04	<0.01	<0.01	3.2	1.3
15...	204	<0.01	0.15	0.02	0.3	<0.2	0.05	<0.01	<0.01	3.5	1.2
17...	266	<0.01	0.14	0.02	0.2	<0.2	0.06	<0.01	<0.01	4.1	1.5
22...	206	<0.01	0.13	0.02	<0.2	<0.2	0.03	<0.01	<0.01	3.2	0.5
JUN 20...	160	<0.01	0.09	0.02	<0.2	<0.2	<0.01	<0.01	<0.01	2.5	0.3
JUL 19...	47.1	0.01	0.19	0.02	<0.2	<0.2	0.02	0.01	0.01	1.2	0.3
AUG 23...	21.5	<0.01	0.48	0.02	<0.2	<0.2	0.08	0.04	0.05	1.1	0.2
SEP 11...	15.2	<0.01	0.43	<0.015	<0.2	<0.2	0.03	0.03	0.05	1.2	0.3
ALUM- INUM, TOTAL RECOV- ERABLE DATE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC TOTAL SOLVED (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CR)	
APR 26...	--	6	<1	--	<1	--	120	--	<1	--	<1
AUG 23...	20	4	<1	<1	<1	<100	100	<10	<1	<1	<1
CHRO- MIUM, DIS- SOLVED SOLVED DATE (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT 24...	--	--	--	--	--	--	<3	--	--	--	--
NOV 21...	--	--	--	--	--	--	3	--	--	--	1
JAN 18...	--	--	--	--	--	--	6	--	--	--	2
FEB 21...	--	--	--	--	--	--	5	--	--	--	3
MAR 21...	--	--	--	--	--	--	5	--	--	--	5
27...	--	--	--	--	--	--	7	--	--	--	4
APR 17...	--	--	--	--	--	--	8	--	--	--	3
26...	20	--	<1	--	<1	--	130	--	<1	--	6
MAY 07...	--	--	--	--	--	--	14	--	--	--	3
15...	--	--	--	--	--	--	15	--	--	--	4
17...	--	--	--	--	--	--	26	--	--	--	2
22...	--	--	--	--	--	--	15	--	--	--	3
JUN 20...	--	--	--	--	--	--	12	--	--	--	2
JUL 19...	--	--	--	--	--	--	8	--	--	--	2
AUG 23...	<1	<1	<1	<1	<1	40	5	<1	<1	<10	<10
SEP 11...	--	--	--	--	--	--	4	--	--	--	1

**09066510 GORE CREEK AT MOUTH NEAR MINTURN, CO--Continued**  
**(National Water-Quality Assessment Program station)**

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, TOTAL DIS- SOLVED (UG/L AS ZN)	
APR 26...	--	--	4	--	26	--	<1	--	<1	--	150
AUG 23...	<0.1	<1	<1	<1	2	<1	<1	<1	<1	<10	1

## MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)		
NOV 08...	1245	28	302	3.0	JUN 20...	1005	936	103	5.0		
21...	0950	33	325	0.5	JUL 19...	0845	210	155	8.0		
APR 17...	1221	99	310	4.0	AUG 23...	0840	48	295	9.5		
MAY 07...	1215	347	205	5.5	SEP 11...	0750	28	350	9.0		
15...	1505	756	147	7.0							
18...	0015	1200	123	3.5							
22...	1025	897	140	4.0							

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, SEDIMENT, SUS- PENDED (MG/L)	SED. SUSP. DIS- CHARGE, SIEVE DIAM.	% FINER SUS- PENDED (T/DAY)	SAMPLER <sup>g</sup> THAN .062 MM (TYPE CODE)
OCT 24...	1010	32	1 <sup>f</sup>	0.09	--	3045
NOV 21...	0945	31	0 <sup>f</sup>	0.0	--	8010
JAN 18...	1100	15	3 <sup>f</sup>	0.13	--	8010
FEB 21...	1215	22	6 <sup>f</sup>	0.36	--	3045
MAR 21...	0910	24	4 <sup>f</sup>	0.25	--	3045
27...	1400	50	21 <sup>f</sup>	2.8	--	3045
APR 17...	1220	99	3 <sup>f</sup>	0.80	--	3044
17...	1221	99	6 <sup>f</sup>	1.6	--	3045
26...	1015	123	4 <sup>f</sup>	1.3	--	3045
MAY 07...	1215	347	58 <sup>f</sup>	54	57	3009
07...	1315	347	26 <sup>f</sup>	24	--	3039
15...	1505	756	68 <sup>f</sup>	139	61	3009
15...	1555	802	71 <sup>f</sup>	154	--	3039
17...	2355	1200	145 <sup>f</sup>	469	--	3039
18...	0015	1200	123	399	45	3009
22...	1025	897	54 <sup>f</sup>	131	33	3009
22...	1055	897	49 <sup>f</sup>	119	36	3039
JUN 20...	1005	936	30 <sup>f</sup>	76	32	3009
20...	1050	926	34 <sup>f</sup>	84	--	3039
JUL 19...	0845	210	6 <sup>f</sup>	3.4	--	3009
19...	0905	210	2 <sup>f</sup>	1.2	--	3039
AUG 23...	0835	48	2 <sup>f</sup>	0.26	--	3045
23...	0840	48	1 <sup>f</sup>	0.13	--	3044
SEP 11...	0745	28	1 <sup>f</sup>	0.08	--	3045
11...	0750	28	1	0.08	--	3045

<sup>f</sup>-Suspended-sediment concentration determined from a subsample split of a composite sample.<sup>g</sup>-Sampler type: code 3009 is a D-74 suspended-sediment sampler; 3044 and 3045 are DH-81 water-quality and suspended-sediment samplers; 3039 is a D-77TM water-quality sampler; 8010 refers to any other sampler type such as a hand-held bottle.

## EAGLE RIVER BASIN

## 09066980 LAKE CREEK NEAR EDWARDS, CO

LOCATION.--Lat 39°38'51", long 106°36'31", in SE<sup>1/4</sup>NE<sup>1/4</sup> sec.6, T.5 S., R.82 W., Eagle County, Hydrologic Unit 14010003, on right bank 30 ft upstream from U.S. Highway 6, and 1.0 mi west of Edwards.

DRAINAGE AREA.--49.0 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1993 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 7,160 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by diversions for irrigation, and return flow from irrigated areas. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	38	25	17	14	12	17	39	147	205	59	14
2	35	29	24	17	14	12	20	40	164	196	58	14
3	33	29	24	17	14	11	21	42	209	186	59	13
4	41	28	23	17	16	11	17	48	257	184	57	12
5	40	32	26	17	13	11	17	60	318	190	52	12
6	37	31	26	17	13	11	18	71	379	184	49	19
7	38	29	24	17	13	11	19	84	355	169	46	27
8	39	27	24	17	12	11	23	102	345	160	42	24
9	38	28	23	17	12	11	27	117	355	141	39	19
10	33	26	23	16	12	11	32	117	332	123	37	16
11	34	33	22	15	11	11	36	125	316	126	36	16
12	39	31	22	15	11	11	34	163	327	122	36	19
13	46	30	22	14	11	11	34	198	305	113	37	32
14	40	29	21	14	11	11	30	226	297	107	36	36
15	38	29	18	14	11	12	29	226	426	103	35	40
16	35	29	21	14	10	12	29	276	357	99	36	38
17	35	28	19	14	10	12	30	333	305	124	35	35
18	38	28	16	14	11	11	32	285	307	124	34	33
19	39	27	e13	14	11	11	30	329	304	110	36	35
20	36	26	e14	14	12	12	28	293	291	98	33	33
21	35	27	e15	14	13	12	27	203	459	92	31	31
22	37	26	e13	14	13	14	26	213	533	87	28	32
23	34	24	e12	14	12	14	27	229	380	77	28	35
24	36	26	e11	13	13	13	33	191	282	71	27	48
25	35	26	e12	14	14	13	43	208	257	67	25	50
26	37	28	e13	13	14	12	42	210	234	63	24	43
27	35	23	e14	14	13	12	44	163	256	61	23	39
28	34	30	e15	14	13	13	43	141	249	59	22	37
29	33	29	e17	14	13	14	41	121	221	64	18	36
30	34	26	e19	14	---	14	39	132	214	71	16	38
31	37	---	17	14	---	16	---	145	---	64	15	---
TOTAL	1140	852	588	463	360	373	888	5130	9181	3640	1109	876
MEAN	36.8	28.4	19.0	14.9	12.4	12.0	29.6	165	306	117	35.8	29.2
MAX	46	38	26	17	16	16	44	333	533	205	59	50
MIN	33	23	11	13	10	11	17	39	147	59	15	12
AC-FT	2260	1690	1170	918	714	740	1760	10180	18210	7220	2200	1740

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1996, BY WATER YEAR (WY)

MEAN	29.7	21.2	13.8	11.3	10.8	11.6	22.5	117	277	152	61.7	31.5
MAX	36.8	28.4	19.0	14.9	12.4	12.2	29.6	165	306	117	35.8	29.2
(WY)	1996	1996	1996	1996	1996	1995	1996	1996	1995	1995	1995	1995
MIN	26.1	16.8	10.8	9.43	9.26	10.6	15.4	43.8	205	44.3	24.5	23.5
(WY)	1994	1995	1994	1995	1994	1994	1995	1995	1994	1994	1994	1994

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1994 - 1996
ANNUAL TOTAL	29200.0	24600	
ANNUAL MEAN	80.0	67.2	63.4
HIGHEST ANNUAL MEAN			77.5
LOWEST ANNUAL MEAN			45.5
HIGHEST DAILY MEAN	845	Jun 16	845
LOWEST DAILY MEAN	8.2	Jan 2	7.0
ANNUAL SEVEN-DAY MINIMUM	9.2	Jan 16	8.0
INSTANTANEOUS PEAK FLOW			1290
INSTANTANEOUS PEAK STAGE		3.30 Jun 22	3.63
ANNUAL RUNOFF (AC-FT)	57920	48790	45950
10 PERCENT EXCEEDS	244	211	205
50 PERCENT EXCEEDS	28	30	24
90 PERCENT EXCEEDS	10	12	10

e-Estimated.

a-Also occurred Feb 17.

**09067000 BEAVER CREEK AT AVON, CO**

LOCATION.--Lat 39°37'47", long 106°31'20", in NE<sup>1/4</sup>SW<sup>1/4</sup> sec.12, T.5 S., R.82 W., Eagle County, Hydrologic Unit 14010003, on left bank at Avon, 550 ft upstream from U.S. Highway 6 and 24, and 700 ft upstream from mouth.

DRAINAGE AREA.--14.8 mi<sup>2</sup>.

PERIOD OF RECORD.--January to December 1911, January 1912 to September 1914, gage heights and discharge measurements only, May 1974 to February 1988. October 1988 to current year.

REVISED RECORDS.--WDR CO-88-2: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 7,453 ft above sea level, from topographic map. Prior to May 1, 1974, nonrecording gage near present site, at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation upstream and downstream from station. Slight natural regulation by several small lakes in headwaters. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	7.8	4.6	e3.3	3.6	3.6	7.1	14	39	39	14	4.8
2	8.5	6.3	e4.3	e3.2	3.4	3.7	8.2	14	40	37	13	4.7
3	8.6	e5.6	e4.3	e3.3	3.3	3.7	8.9	14	44	35	13	e4.9
4	9.5	e5.2	e4.2	e3.4	3.3	3.7	7.9	16	49	34	13	e5.1
5	9.0	e4.8	e4.2	e3.3	3.3	3.8	7.6	20	63	34	12	4.8
6	8.0	e4.8	e4.2	e3.1	3.3	3.8	8.2	27	77	32	10	6.3
7	8.4	4.5	e4.2	e3.3	3.3	3.7	9.1	31	73	30	8.9	6.8
8	8.3	4.9	e4.2	e3.2	3.3	3.7	12	35	76	28	8.6	6.1
9	7.6	4.6	e4.2	e3.2	3.4	3.9	14	37	86	27	8.6	6.0
10	7.4	4.8	e4.0	e3.2	3.3	3.8	15	37	87	25	8.3	5.3
11	7.5	8.4	e4.0	e3.1	3.3	4.0	15	40	85	24	7.3	5.4
12	9.0	5.8	e4.1	e3.2	3.3	3.7	12	48	82	24	6.7	5.3
13	10	4.6	e4.2	e3.1	3.3	3.7	11	57	83	22	6.7	9.1
14	7.8	4.9	e4.2	e3.1	3.3	3.9	9.8	64	80	22	6.8	7.8
15	7.6	4.6	e3.5	e3.1	3.4	4.0	9.5	75	99	21	6.3	9.0
16	7.2	4.5	e3.7	e3.3	3.5	4.1	9.7	79	97	21	6.6	8.2
17	6.9	4.5	e3.4	e3.5	3.5	4.0	10	87	88	23	6.6	7.2
18	6.7	4.4	e3.2	e3.0	3.8	3.9	9.7	81	84	21	6.8	7.3
19	6.8	3.9	e2.9	e3.1	3.7	4.0	9.0	83	80	21	7.1	7.8
20	6.1	4.0	e3.1	e3.2	3.8	4.0	8.6	79	76	19	7.6	7.1
21	5.7	4.3	e3.3	e3.0	4.3	4.4	8.3	64	90	18	6.6	6.8
22	6.8	4.1	e3.0	e3.2	4.3	4.8	8.0	61	94	17	6.5	6.9
23	6.1	4.5	e2.7	3.4	4.0	5.0	9.2	60	79	16	6.1	7.0
24	6.0	4.6	e2.6	3.6	3.9	4.9	14	57	66	15	e5.6	9.0
25	6.5	4.0	e2.8	3.5	3.9	4.6	18	59	61	15	e5.2	8.4
26	5.8	4.0	e2.9	3.3	3.8	5.4	17	60	56	15	e5.4	7.3
27	6.2	4.5	e3.0	3.3	3.8	4.5	17	49	54	15	e5.6	7.0
28	5.6	e4.2	e3.1	3.3	3.7	4.8	15	46	52	14	e5.4	6.9
29	5.6	e4.8	e3.1	3.3	3.7	5.3	13	41	46	15	5.5	6.8
30	6.0	e4.4	e3.2	3.3	---	5.5	13	40	42	16	5.2	6.7
31	5.9	---	e3.3	3.5	---	6.2	---	40	---	14	5.0	---
TOTAL	226.1	146.3	111.7	100.9	103.8	132.1	334.8	1515	2128	709	240.0	201.8
MEAN	7.29	4.88	3.60	3.25	3.58	4.26	11.2	48.9	70.9	22.9	7.74	6.73
MAX	10	8.4	4.6	3.6	4.3	6.2	18	87	99	39	14	9.1
MIN	5.6	3.9	2.6	3.0	3.3	3.6	7.1	14	39	14	5.0	4.7
AC-FT	448	290	222	200	206	262	664	3010	4220	1410	476	400

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1996, BY WATER YEAR (WY)

MEAN	4.19	3.43	2.89	2.47	2.34	2.88	6.09	27.0	62.6	30.7	9.85	5.68
MAX	8.27	5.54	5.01	4.17	3.99	4.26	11.2	51.7	114	75.5	25.6	10.6
(WY)	1985	1984	1984	1986	1986	1996	1996	1974	1983	1983	1984	1984
MIN	2.28	2.07	1.65	1.44	1.51	1.49	2.48	11.5	22.6	4.81	2.34	1.41
(WY)	1981	1980	1995	1981	1977	1977	1975	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1974 - 1996
ANNUAL TOTAL	6907.3	5949.5	
ANNUAL MEAN	18.9	16.3	13.3
HIGHEST ANNUAL MEAN			22.7
LOWEST ANNUAL MEAN			4.94
HIGHEST DAILY MEAN	188	Jun 16	242
LOWEST DAILY MEAN	1.3	Jan 2	.55
ANNUAL SEVEN-DAY MINIMUM	1.5	Jan 1	.75
INSTANTANEOUS PEAK FLOW		124	249
INSTANTANEOUS PEAK STAGE		3.07	3.46
ANNUAL RUNOFF (AC-FT)	13700	11800	9650
10 PERCENT EXCEEDS	73	55	40
50 PERCENT EXCEEDS	5.9	6.6	4.2
90 PERCENT EXCEEDS	2.1	3.3	2.0

e-Estimated.

## EAGLE RIVER BASIN

**09067005 EAGLE RIVER AT AVON, CO**

LOCATION.--Lat 39°37'54", long 106°31'19", in SE<sup>1/4</sup>NW<sup>1/4</sup> sec.12, T.5 S., R.82 W., Eagle County, Hydrologic Unit 14010003, on left bank 100 ft downstream from bridge, 300 ft north of Highway 6 and 24, and 350 ft downstream from Beaver Creek, in the city of Avon.

DRAINAGE AREA.--395 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--October 1988 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 7,410 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, diversions for irrigation and municipal use.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	203	150	112	e92	e80	e84	207	558	1400	1220	317	115
2	182	132	109	e87	e77	e88	232	631	1480	1150	302	111
3	169	102	105	e90	e74	e85	250	721	1710	1070	300	106
4	193	112	106	e92	e70	e88	235	914	1980	1040	300	103
5	196	113	112	e89	e79	e96	226	1140	2210	1050	278	108
6	174	120	115	e86	e76	e91	230	1350	2360	1030	253	144
7	193	124	109	e86	e72	e86	252	1500	2310	972	241	160
8	196	115	109	e88	e72	e85	290	1750	2240	877	229	132
9	184	117	106	e91	e72	e88	386	1880	2240	787	225	118
10	177	115	102	e91	e71	e96	466	1840	2200	739	217	108
11	179	108	96	e90	e70	e108	487	1880	2140	723	206	105
12	193	127	106	e88	e69	e125	409	2210	2120	671	197	111
13	223	126	108	e86	e71	e118	388	2350	2110	625	192	161
14	197	131	101	e86	e72	e118	316	2390	2080	587	182	170
15	194	122	72	e88	e74	e125	279	2460	2050	560	175	226
16	184	119	e80	e88	e73	e120	295	2660	2040	541	186	194
17	178	119	e84	e86	e74	e110	330	2810	1990	589	180	165
18	170	113	e75	e81	e79	e95	334	2670	1970	587	177	157
19	164	114	e71	e84	e84	e88	312	2770	1910	525	188	166
20	145	112	e64	e88	e84	e96	296	2690	1840	489	182	157
21	149	109	e68	e86	e87	e110	292	2240	2110	465	176	145
22	156	111	e71	e86	e97	e125	283	2220	2250	434	172	143
23	135	108	e65	e83	e94	e135	290	2220	1990	424	179	159
24	132	100	e59	e82	e96	e125	384	2030	1700	396	165	252
25	143	104	e64	e80	e99	e120	600	2070	1570	361	153	245
26	144	108	e68	e76	e95	e145	594	2090	1440	339	146	207
27	138	105	e71	e73	e88	164	637	1780	1470	329	151	175
28	132	100	e76	e80	e84	169	605	1550	1440	318	146	171
29	131	114	e78	e82	e80	178	528	1390	1320	342	138	178
30	135	110	e85	e82	--	183	517	1370	1280	376	128	178
31	136	--	e96	e82	--	192	--	1390	--	347	121	--
TOTAL	5225	3460	2743	2649	2313	3636	10950	57524	56950	19963	6202	4670
MEAN	169	115	88.5	85.5	79.8	117	365	1856	1898	644	200	156
MAX	223	150	115	92	99	192	637	2810	2360	1220	317	252
MIN	131	100	59	73	69	84	207	558	1280	318	121	103
AC-FT	10360	6860	5440	5250	4590	7210	21720	114100	113000	39600	12300	9260

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1996, BY WATER YEAR (WY)

MEAN	102	78.7	62.7	55.2	52.9	67.9	226	1181	1605	720	229	136
(WY)	1996	1996	1996	1996	1996	1996	1996	1996	1996	1995	541	179
MIN	67.5	47.6	43.6	38.3	39.2	47.6	124	577	936	230	106	94.0
(WY)	1989	1990	1990	1992	1992	1991	1991	1995	1992	1994	1994	1990

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1989 - 1996

ANNUAL TOTAL	188004		176285									
ANNUAL MEAN	515		482									
HIGHEST ANNUAL MEAN												
LOWEST ANNUAL MEAN												
HIGHEST DAILY MEAN	2930	Jun 18	2810	May 17	3680	May 28	1993					
LOWEST DAILY MEAN	e37	Jan 23	e59	Dec 24	a32	Nov 29	1989					
ANNUAL SEVEN-DAY MINIMUM	40	Jan 18	66	Dec 20	35	Jan 4	1992					
INSTANTANEOUS PEAK FLOW			3170	May 17	3860	May 31	1993					
INSTANTANEOUS PEAK STAGE			4.19	May 17	5.14	May 31	1993					
ANNUAL RUNOFF (AC-FT)	372900		349700		273300							
10 PERCENT EXCEEDS	2120		1850		1230							
50 PERCENT EXCEEDS	135		160		105							
90 PERCENT EXCEEDS	47		80		47							

e-Estimated.

a-Also occurred Jan 5-6, 1990.

## 09067005 EAGLE RIVER AT AVON, CO--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1993 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET DUCT- ANCE (US/CM)	SPE- CIFIC CON- (STAND- ARD UNITS)	pH	TEMPER- ATURE (DEG C)	OXYGEN, WATER (MG/L)	DIS- SOLVED (COLS./ 100 ML)	COLI- FORM, FECAL, 0.7	E. COLI WATER WHOLE UREASE (COL / 100 ML)	NITRO- GEN, NITRITE TOTAL DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO <sub>2</sub> +NO <sub>3</sub> DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
OCT 17...	1415	173	234	7.8	6.5	10.1	K3	<1	<0.01	0.09	<0.015	<0.2
MAR 19...	1500	79	406	8.2	3.5	11.1	<1	K3	0.01	0.54	0.02	<0.2
JUN 11...	1515	2060	113	8.1	9.0	9.2	K10	K5	0.01	0.13	0.05	<0.2
AUG 22...	0745	172	285	8.3	12.0	8.8	120	46	<0.01	0.30	<0.015	<0.2
PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	ORTHO, CADMIUM DIS- SOLVED (UG/L AS CD)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	
OCT 17...	<0.01	<0.01	<1	17	290	2	150	150	<0.1	<1	<0.2	70
MAR 19...	0.03	0.03	<1	<1	890	<1	430	90	<0.1	<1	<0.2	200
JUN 11...	0.01	<0.01	<1	1	340	<1	40	20	<0.1	<1	<0.2	18
AUG 22...	0.01	0.02	<1	1	260	<1	120	140	<0.1	<1	<0.2	60

K-Based on non-ideal colony count.

## MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET DUCT- ANCE (US/CM)	SPE- CIFIC CON- (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET DUCT- ANCE (US/CM)	SPE- CIFIC CON- (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)
OCT 05...	1400	190	240	5.0	APR 15...	1410	287	308	5.0
NOV 28...	0950	94	--	0.0	MAY 15...	1400	2360	132	7.0
FEB 07...	1325	73	370	1.0	JUL 11...	0850	762	131	9.5

## EAGLE RIVER BASIN

**09069000 EAGLE RIVER AT GYPSUM, CO**  
**WATER-QUALITY RECORDS**

LOCATION.--Lat 39°39'00", long 106°57'06", Eagle County, Hydrologic Unit 14010003, at bridge at Gypsum, about 400 ft upstream from Gypsum Creek, about 520 ft upstream from bridge on U.S. Highways 6 and 24, and about 550 ft upstream from gaging station.

DRAINAGE AREA.--944 mi<sup>2</sup>, at gaging station.

PERIOD OF RECORD.--April 1947 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1947 to March 31, 1995 (discontinued).

WATER TEMPERATURE: April 1949 to March 31, 1995 (discontinued).

REMARKS.--Records of discharge are given for Eagle River below Gypsum (station 09070000), located 550 ft, downstream from Eagle River at Gypsum (station 09069000).

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 2,200 microsiemens March 9, 1990; minimum daily, 130 microsiemens June 9-10, 1976.

WATER TEMPERATURE: Maximum daily, 24°C August 24, 1949, several days in August 1988, and July 27, 1990; minimum daily, 0.0°C on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-	SPE-	pH	TEMPER-	OXYGEN,	HARD-	MAGNE-	SODIUM,	SODIUM	
		CHARGE, INST. CUBIC FEET DUCT- PER SECOND	CIFIC CON- ANCE (STAND- ARD UNITS)				NESS TOTAL DIS- SOLVED (MG/L)	CALCIUM SOLVED (MG/L) CACO3	SILUM, DIS- SOLVED (MG/L) AS CA)	DIS- SOLVED (MG/L) AS MG)	AD- SORP- TION RATIO
OCT 17...	1130	333	651	8.1	7.0	11.3	270	82	15	30	0.8
MAR 19...	1200	181	940	8.2	5.0	11.7	330	95	22	58	1
JUN 11...	1230	3420	178	8.3	9.0	9.6	73	22	4.4	3.7	0.2
AUG 22...	1130	246	747	8.6	14.5	8.9	290	89	16	33	0.8
<hr/>											
DATE		POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB SOLVED (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SUM OF TUENTS, DIS- SOLVED (TONS (MG/L)	SOLIDs, DIS- SOLVED (TONS PER AC-FT)	RSEDUE AT 105 DEG. C, SUS- PENDED (MG/L)	
		1.9	114	150	41	0.1	6.6	395	0.54	356	<1
OCT 17...		2.8	144	210	79	0.2	8.2	565	0.77	276	26
MAR 19...		0.7	56	24	4.1	<0.1	5.2	98	0.13	907	25
JUN 11...		2.0	129	190	45	0.2	7.4	462	0.63	307	2
<hr/>											
DATE		NITRO- GEN, NITRITE NO2+NO3	NITRO- GEN, AMMONIA	NITRO- GEN, AM- MONIA + ORGANIC	NITRO- GEN, AM- MONIA + ORGANIC	NITRO- GEN, AM- MONIA + ORGANIC	PHOS- PHORUS DIS- SOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	
		(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS P)	(MG/L AS P)	(MG/L AS P)	(MG/L AS P)	
OCT 17...		<0.01	0.09	<0.02	<0.2	<0.2	<0.01	<0.01	<0.01	<0.01	
MAR 19...		0.01	0.77	0.03	0.2	<0.2	0.07	0.06	0.06	0.06	
JUN 11...		<0.01	0.12	0.05	<0.2	<0.2	0.03	<0.01	<0.01	<0.01	
AUG 22...		0.01	0.42	0.02	<0.2	<0.2	0.03	0.05	0.03	0.03	

## 09069000 EAGLE RIVER AT GYPSUM, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	ANTI-MONY, DIS-SOLVED (UG/L AS SB)		ARSENIC TOTAL (UG/L AS AS)		BARIUM, DIS-SOLVED (UG/L AS BA)		BERYL-LIUM, DIS-SOLVED (UG/L AS BE)		CADMIUM TOTAL ERABLE (UG/L AS CD)		CADMIUM DIS-SOLVED (UG/L AS CD)		CHRO-MIUM, DIS-RECOV-ERABLE (UG/L AS CR)		CHRO-MIUM, DIS-RECOV-ERABLE (UG/L AS CR)	
OCT 17...	<1	<1	<1		47	<0.5	--	<1	--	--	<1					
MAR 19...	<1	<1	<1		<100	<0.5	<1	<1	<1	<1	<1					
JUN 11...	<1	<1	<1		33	<0.5	--	<1	<1	--	<1					
AUG 22...	<1	<1	<1		55	<0.5	<1	<1	<1	<1	<1					
DATE	COPPER, TOTAL ERABLE (UG/L AS CU)		COPPER, DIS-SOLVED (UG/L AS CU)		IRON, DIS-SOLVED (UG/L AS FE)		LEAD, RECOV-ERABLE (UG/L AS PB)		LEAD, DIS-SOLVED (UG/L AS PB)		MANGANESE, DIS-SOLVED (UG/L AS MN)		MERCURY TOTAL ERABLE (UG/L AS HG)		MERCURY DIS-SOLVED (UG/L AS HG)	
OCT 17...	--	<1		44	--		<1		38	<0.1		<0.1				
MAR 19...	3	1	<3		1	<1		100	<0.1	<0.1		<0.1				
JUN 11...	--	<1		34	--		<1		11	<0.1		<0.1				
AUG 22...	<1	1	--		<1		<1		--	<0.1		<0.1				
DATE	NICKEL, TOTAL ERABLE (UG/L AS NI)		NICKEL, DIS-SOLVED (UG/L AS NI)		SELENIUM, TOTAL (UG/L AS SE)		SILVER, DIS-SOLVED (UG/L AS AG)		SILVER, ERABLE (UG/L AS AG)		ZINC, TOTAL ERABLE (UG/L AS ZN)		ZINC, DIS-SOLVED (UG/L AS ZN)			
OCT 17...	--	<1	<1		<1	<1	--	<1	--	<1	--		20			
MAR 19...	2	<1	1		1	<1	<1	<1	160		160		40			
JUN 11...	--	<1	<1		<1	<1	--	<1	--	<1	--		10			
AUG 22...	<1	<1	<1		<1	<1	<1	<1	20		20		13			

## EAGLE RIVER BASIN

**09070000 EAGLE RIVER BELOW GYPSUM, CO**

LOCATION.--Lat 39°38'58", long 106°57'11", in SW<sup>1/4</sup>NW<sup>1/4</sup> sec.5, T.5 S., R.85 W., Eagle County, Hydrologic Unit 14010003, on right bank 30 ft downstream from bridge on U.S. Highways 6 and 24 at Gypsum and 150 ft downstream from Gypsum Creek.

DRAINAGE AREA.--944 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1946 to current year.

REVISED RECORDS.--WDR CO-88-2: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 6,275.11 ft, above sea level.

REMARKS.--No estimated daily discharges. Records good. Transmountain diversions upstream from station, see elsewhere in this report. Transbasin diversions upstream from station from Robinson Reservoir, capacity, 2,520 acre-ft, to Tenmile Creek for mining development. Many small diversions for irrigation of hay meadows upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	422	348	242	223	191	180	289	599	1950	1830	452	187
2	378	334	237	207	191	188	337	663	2010	1720	421	176
3	352	277	231	214	167	179	388	721	2300	1610	416	170
4	365	259	228	223	160	202	359	899	2720	1530	427	167
5	380	265	248	220	215	209	335	1210	3060	1560	405	173
6	351	274	252	206	222	196	335	1540	3570	1530	368	206
7	353	284	241	214	200	180	361	1700	3570	1460	347	244
8	360	276	237	219	195	179	404	1890	3500	1330	335	235
9	356	274	230	220	194	197	509	2130	3570	1180	317	216
10	346	286	226	223	192	210	639	2110	3500	1080	300	202
11	336	241	219	217	186	232	708	2070	3370	1050	298	196
12	346	268	223	212	176	256	635	2430	3340	994	289	198
13	405	277	232	214	171	246	610	2810	3210	911	280	240
14	386	278	234	210	186	240	517	3020	3230	864	273	264
15	361	279	189	208	187	244	453	3160	3230	812	260	302
16	349	268	177	212	180	255	464	3570	3340	776	262	326
17	343	267	205	207	180	244	495	4140	3110	844	264	292
18	357	258	169	185	206	210	512	3930	3040	895	255	282
19	350	254	141	188	203	195	508	4200	2950	816	259	314
20	340	253	134	200	212	200	447	4260	2810	721	260	309
21	325	251	144	203	230	219	442	3350	3240	681	254	302
22	342	248	152	203	272	269	411	3190	3610	633	248	295
23	334	241	128	198	239	293	393	3290	3350	590	248	298
24	313	230	105	188	204	269	447	2950	2650	562	246	382
25	325	228	113	189	208	236	693	2940	2430	512	234	449
26	325	232	125	189	217	220	759	3170	2170	482	222	410
27	321	238	139	168	197	222	788	2660	2210	459	218	374
28	308	218	147	188	171	234	790	2290	2180	443	220	349
29	302	232	178	198	165	260	666	2040	2010	457	215	344
30	300	239	212	199	--	265	606	1950	1900	528	204	349
31	301	--	227	195	--	265	--	1960	--	488	198	--
TOTAL	10732	7877	5965	6340	5717	6994	15300	76842	87130	29348	8995	8251
MEAN	346	263	192	205	197	226	510	2479	2904	947	290	275
MAX	422	348	252	223	272	293	790	4260	3610	1830	452	449
MIN	300	218	105	168	160	179	289	599	1900	443	198	167
AC-FT	21290	15620	11830	12580	11340	13870	30350	152400	172800	58210	17840	16370

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1996, BY WATER YEAR (WY)

MEAN	259	240	198	181	173	187	351	1330	2309	1033	384	268
MAX	526	382	277	243	252	297	862	2722	4134	2989	1096	625
(WY)	1962	1985	1985	1984	1986	1986	1962	1984	1984	1957	1984	1984
MIN	129	169	150	139	125	138	183	528	742	251	150	141

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1947 - 1996

ANNUAL TOTAL	302575		269491									
ANNUAL MEAN	829		736							577		
HIGHEST ANNUAL MEAN										1082		1984
LOWEST ANNUAL MEAN										264		1977
HIGHEST DAILY MEAN	5640	Jun 18		4260	May 20		6580		May 25	1984		
LOWEST DAILY MEAN	92	Jan 23		105	Dec 24		78		Dec 10	1994		
ANNUAL SEVEN-DAY MINIMUM	121	Jan 18		129	Dec 20		99		Aug 29	1990		
INSTANTANEOUS PEAK FLOW				4620	May 20		7020		May 25	1984		
INSTANTANEOUS PEAK STAGE				7.98	May 20		9.46		May 25	1984		
ANNUAL RUNOFF (AC-FT)	600200		534500				417800					
10 PERCENT EXCEEDS	3010		2500				1580					
50 PERCENT EXCEEDS	280		287				241					
90 PERCENT EXCEEDS	152		188				158					

## 09070500 COLORADO RIVER NEAR DOTZERO, CO

LOCATION.--Lat 39°38'38", long 107°04'38", in NW<sup>1/4</sup>SE<sup>1/4</sup> sec. 6, T.5 S., R.86 W., Eagle County, Hydrologic Unit 14010001, on left bank about 500 ft south of Interstate Highway 70, 1.5 mi west of Dotzero, and 1.5 mi downstream from Eagle River.

DRAINAGE AREA.--4,394 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1940 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,130 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, diversions for irrigation of 68,000 acres upstream from station, and return flow from irrigated areas.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1530	e1620	e1410	e1030	e990	e1250	2750	4250	6230	6990	1930	1490
2	1440	e1560	1400	e1000	e950	1280	3020	4410	6180	6280	1880	1480
3	1380	1450	1390	e1020	e860	1270	3460	4300	6400	6000	1840	1450
4	1360	1390	1380	e1040	e1010	1270	3530	4250	6930	5490	1860	1430
5	1420	1390	1380	e1020	e1090	1320	3570	4820	7350	5200	1800	1370
6	1440	1420	1400	e1000	e1100	1300	3580	5290	7870	5160	1730	1370
7	1420	1450	1390	e1020	e1080	1250	3640	6180	7950	5230	1680	1450
8	1420	1450	1380	e1040	e1040	1220	3780	6730	8020	5270	1620	1390
9	1420	1420	1360	e1050	e1020	1270	4250	7130	8100	4820	1560	1340
10	1410	1510	1350	e1050	e1000	1290	4840	7270	8160	4340	1560	1320
11	1380	1420	1350	e1030	e970	1320	5120	7290	7990	4000	1570	1300
12	1400	1460	1330	e1020	e940	1400	4780	7950	7840	3710	1540	1320
13	1490	1490	1310	e1020	e920	1480	4490	8900	7700	3530	1490	1430
14	1530	1590	1340	e1010	e950	1490	4180	9810	7780	3410	1420	1470
15	1470	1590	1240	e1010	e940	1620	3860	10300	7990	3350	1480	1490
16	1430	1550	1120	e1000	e940	1800	3830	10900	8430	3110	1600	1520
17	1390	1510	e1200	e980	e1010	1870	3970	12300	8410	3020	1540	1470
18	1390	1480	e1090	e930	e1030	1850	4070	12800	8720	3120	1520	1450
19	1280	1470	e970	e940	e1140	1830	4050	13200	8990	3170	1480	1500
20	1160	1450	e860	e980	e1220	1890	3800	13300	9240	3160	1470	1390
21	1050	1440	e900	e1000	e1390	1950	3720	11200	10700	3060	1420	1380
22	1050	1440	e920	e990	e1600	2110	3630	9650	11300	2950	1440	1370
23	1080	1450	e820	e950	e1490	2370	3580	8670	11600	2710	1510	1350
24	e1080	1410	e650	e930	e1360	2330	3740	7720	11400	2480	1590	1460
25	e1100	1410	e680	e920	e1230	2240	4480	7460	10000	2350	1710	1490
26	e1120	1410	e750	e930	e1250	2190	4830	8230	9280	2260	1670	1510
27	e1130	1440	e850	e880	e1120	2230	4830	7910	8800	2120	1600	1500
28	e1110	e1300	e950	e950	e1090	2290	4820	7340	8670	2030	1560	1440
29	e1110	e1400	e1030	e990	e1200	2460	4520	7090	8130	2070	1570	1440
30	e1100	e1410	e1080	e1000	---	2590	4280	6830	7720	2100	1550	1450
31	e1200	---	e1090	e990	---	2650	---	6410	---	2000	1520	--
TOTAL	40290	43780	35370	30720	31930	54680	121000	249890	253880	114490	49710	42820
MEAN	1300	1459	1141	991	1101	1764	4033	8061	8463	3693	1604	1427
MAX	1530	1620	1410	1050	1600	2650	5120	13300	11600	6990	1930	1520
MIN	1050	1300	650	880	860	1220	2750	4250	6180	2000	1420	1300
AC-FT	79920	86840	70160	60930	63330	108500	240000	495700	503600	227100	98600	84930

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1996, BY WATER YEAR (WY)

MEAN	1190	1082	950	901	914	1035	1882	4844	6395	3190	1700	1283
MAX	2038	1664	1503	1473	1603	1961	5601	10770	13440	9354	4055	2616
(WY)	1963	1963	1985	1985	1962	1962	1962	1984	1984	1983	1984	1984
MIN	759	677	521	504	529	610	1039	1436	1373	1021	1050	737
(WY)	1943	1978	1943	1941	1943	1964	1964	1977	1954	1963	1958	1942

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1941 - 1996
ANNUAL TOTAL	1009208	1068560	
ANNUAL MEAN	2765	2920	2116
HIGHEST ANNUAL MEAN			4173
LOWEST ANNUAL MEAN			1117
HIGHEST DAILY MEAN	14600	Jun 18	1984
LOWEST DAILY MEAN	350	Jan 1	1944
ANNUAL SEVEN-DAY MINIMUM	544	Jan 1	1944
INSTANTANEOUS PEAK FLOW		13800	1984
INSTANTANEOUS PEAK STAGE		10.46	1984
ANNUAL RUNOFF (AC-FT)	2002000	2119000	1533000
10 PERCENT EXCEEDS	9230	7800	5000
50 PERCENT EXCEEDS	1390	1490	1250
90 PERCENT EXCEEDS	668	1000	755

e-Estimated

a-Also occurred Jan 1, 1995.

## COLORADO RIVER MAIN STEM

**09070500 COLORADO RIVER NEAR DOTZERO, CO--Continued**  
**(National Water-Quality Assessment Program station)**
**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--October 1995 to September 1996.

REMARKS.--Upper Colorado River Basin National Water Quality Assessment Program station (NAWQA).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-	CHARGE,	SPE-	PH	TEMPER-	OXYGEN,	HARD-	CALCIUM	MAGNE-	SODIUM	SODIUM	POTAS-	
		INST.	CUBIC	DUCT-		(STAND-	ATURE	DIS-	TOTAL	DIS-	SILUM,	SODIUM,	AD-	
		FEET	CON-	PER	ARD	WATER	SOLVED	(MG/L)	SOLVED	SOLVED	(MG/L)	(MG/L)	SORP-	
		SECOND	(US/CM)	SECOND	UNITS	(DEG C)	(MG/L)	CACO3)	AS CA)	AS MG)	AS NA)	AS NA)	DIS-	
OCT	25...	1250	1090		587	8.2	4.0	12.3	230	68	14	26	0.8	2.1
NOV	20...	1415	1480		420	8.2	4.0	11.7	150	47	8.9	18	0.6	1.8
JAN	17...	1215	1730		401	7.6	0.0	10.3	150	46	8.8	25	0.9	1.7
FEB	20...	1520	1260		412	8.1	1.0	11.4	150	44	8.9	21	0.8	2.1
MAR	20...	1200	1890		369	8.2	4.5	12.1	130	39	7.7	17	0.7	1.8
APR	16...	1150	3840		336	8.0	6.0	10.9	130	39	8.4	14	0.5	2.0
MAY	20...	1440	13600		182	7.9	10.5	8.6	76	23	4.6	5.2	0.3	1.1
JUN	19...	1105	9230		188	8.0	12.5	8.9	78	24	4.4	6.2	0.3	1.1
	27...	0930	8900		195	7.8	13.0	8.6	80	25	4.3	6.4	0.3	1.3
JUL	17...	1215	3030		330	8.2	17.5	9.5	120	38	6.7	13	0.5	1.5
	25...	0850	2380		345	8.0	16.0	8.0	130	40	7.0	16	0.6	1.8
AUG	14...	1215	1450		462	8.4	17.5	8.1	170	50	10	23	0.8	2.2
SEP	10...	1415	1330		486	8.3	17.0	9.2	170	53	10	22	0.7	2.1
<hr/>														
DATE	BICAR- <sup>a</sup>	CAR- <sup>b</sup>	ALKA- <sup>c</sup>	LINITY	CHLO-	FLUO-	SILICA,	SOLIDS,	SOLIDS,	SOLIDS,	SOLIDS,	SOLIDS,	NITRO-	
	BONATE	BONATE	LINITY		RIDE,	RIDE,	DIS-	RESIDUE	SUM OF	RESIDUE	DIS-	DIS-	GEN,	
	WATER	WATER	WAT DIS	SULFATE	DIS-	DIS-	SOLVED	AT 180	CONSTITUENTS,	DIS-	SOLVED	SOLVED	NITRITE	
	DIS IT	DIS IT	TOT IT		SOLVED	SOLVED	SOLVED	DEG. C	TUENTS,	DIS-	SOLVED	SOLVED	DIS-	
	FIELD	FIELD	FIELD		(MG/L)	(MG/L)	(MG/L)	(MG/L)	DIS-	SOLVED	(TONS	(TONS	SOLVED	
	(MG/L AS	(MG/L AS	(MG/L AS		AS SO4)	AS CL)	AS F)	AS SIO2)	SOLVED	(MG/L)	PER	PER	(MG/L)	
	HCO3)	CO3)	CACO3)						(MG/L)	AC-FT)	DAY)		AS N)	
OCT	25...	143	--	117	120	30	0.3	10	374	341	0.51	1100	<0.01	
NOV	20...	109	--	89	77	22	0.3	7.8	255	237	0.35	1020	<0.01	
JAN	17...	98	--	81	67	25	0.3	9.4	239	233	0.33	1120	<0.01	
FEB	20...	99	--	81	71	27	0.3	8.8	244	233	0.33	830	0.01	
MAR	20...	92	--	75	65	21	0.3	7.8	222	205	0.30	1130	<0.01	
APR	16...	94	--	77	61	12	0.3	8.9	197	193	0.27	2040	<0.01	
MAY	20...	67	--	55	24	3.4	0.2	9.2	118	104	0.16	4320	<0.01	
JUN	19...	63	--	52	24	5.0	0.2	8.0	102	104	0.14	2540	<0.01	
	27...	60	--	49	28	5.3	0.2	7.4	120	108	0.16	2880	<0.01	
JUL	17...	101	--	83	54	16	0.3	7.7	197	187	0.27	1610	0.01	
	25...	93	--	76	57	17	0.3	8.0	210	193	0.29	1350	0.01	
AUG	14...	119	3	103	88	25	0.3	8.6	268	269	0.36	1050	<0.01	
SEP	10...	119	--	98	95	28	0.3	7.8	291	277	0.40	1040	<0.01	

a-Field dissolved bicarbonate, determined by incremental titration method.

b-Field dissolved carbonate, determined by incremental titration method.

c-Field total dissolved alkalinity, determined by incremental titration method.

**09070500 COLORADO RIVER NEAR DOTSERO, CO--Continued**  
**(National Water-Quality Assessment Program station)**

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO-GEN, NO <sub>2</sub> +NO <sub>3</sub> DIS- SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO-GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS. (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC SUS- PENDED (MG/L AS C)	CARBON, ORGANIC TOTAL (MG/L AS C)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT 25...	0.05	<0.015	<0.2	<0.2	<0.01	0.02	<0.01	2.5	0.2	28	22	
NOV 20...	0.08	<0.015	<0.2	<0.2	0.02	<0.01	<0.01	2.7	0.3	23	13	
JAN 17...	0.24	<0.015	<0.2	<0.2	0.03	<0.01	0.02	1.8	0.3	21	9	
FEB 20...	0.24	0.03	0.3	<0.2	0.04	0.01	0.02	2.2	0.6	11	20	
MAR 20...	0.13	<0.015	<0.2	<0.2	0.03	<0.01	0.01	2.5	0.7	13	21	
APR 16...	0.16	0.02	0.2	0.2	0.05	<0.01	<0.01	3.6	1.1	25	19	
MAY 20...	0.10	0.02	0.3	<0.2	0.15	<0.01	0.01	5.2	1.7	46	13	
JUN 19...	0.07	0.02	0.2	<0.2	0.03	<0.01	<0.01	3.7	0.8	37	7	
	27...	0.09	<0.015	<0.2	<0.2	0.05	<0.01	3.2	0.3	33	7	
JUL 17...	0.10	0.03	<0.2	<0.2	0.02	<0.01	<0.01	2.8	0.5	31	13	
	25...	0.08	0.04	0.3	<0.2	<0.01	<0.01	2.5	0.4	19	12	
AUG 14...	0.11	<0.015	<0.2	<0.2	0.01	<0.01	<0.01	2.9	0.5	20	17	
SEP 10...	0.09	<0.015	<0.2	<0.2	0.02	<0.01	<0.01	2.8	0.4	19	12	

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CUBIC DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CUBIC DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)		
OCT 23...	1520	1080	556	5.5							
NOV 28...	1141	1290	474	0.5							
FEB 20...	1325	1240	--	1.0							
APR 16...	1100	3850	336	6.0	MAY 20...	1100	13600	182	10.5		
	1235	3840	336	6.0		21...	1606	10700	180	10.5	
16...	0840	4100	288	3.5	JUN 26...	1328	9280	197	13.5		
19...	1518	4730	304	9.0	AUG 13...	1442	1530	306	19.5		

## COLORADO RIVER MAIN STEM

**09070500 COLORADO RIVER NEAR DOTZERO, CO--Continued**  
**(National Water-Quality Assessment Program station)**

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	% FINER THAN .062 MM	SED. SIEVE DIAM. TYPE (CODE)
OCT 25...	1250	1090		3 <sup>d</sup>	8.8	--
NOV 20...	1415	1480		5 <sup>d</sup>	20	--
JAN 17...	1215	1730		30 <sup>d</sup>	140	--
FEB 20...	1520	1260		30 <sup>d</sup>	102	--
MAR 20...	1200	1890		37 <sup>d</sup>	189	--
	1210	1890		41 <sup>d</sup>	209	--
APR 16...	1100	3850		78	811	--
16...	1150	3840		52 <sup>d</sup>	539	--
16...	1235	3840		83	861	--
MAY 20...	1100	13600		207	7600	68
20...	1440	13600		163 <sup>d</sup>	5970	--
JUN 19...	1010	9230		73	1820	61
19...	1105	9230		65 <sup>d</sup>	1630	--
27...	0850	8900		67	1610	48
27...	0930	8900		61 <sup>d</sup>	1470	--
JUL 17...	1145	3030		17	139	74
17...	1215	3030		12 <sup>d</sup>	101	--
25...	0850	2380		24 <sup>d</sup>	154	--
25...	0905	2360		13	83	--
AUG 14...	1155	1450		9	36	--
14...	1215	1450		8 <sup>d</sup>	30	--
SEP 10...	1345	1330		24 <sup>d</sup>	86	37
10...	1415	1330		4 <sup>d</sup>	14	--
						3009
						3039

d-Suspended-sediment concentration determined from a subsample split of a composite sample.

f-Sampler type: code 3045 is a DH-81 water-quality and suspended-sediment sampler; code 3039 is a D-77TM water-quality sampler; code 3009 is a D-74 suspended-sediment sampler.

## 09071300 GRIZZLY CREEK NEAR GLENWOOD SPRINGS, CO

LOCATION.--Lat 39°43'00", long 107°18'35", in NE<sup>1/4</sup>SW<sup>1/4</sup> sec.7, T.4 S., R.88 W., Garfield County, Hydrologic Unit 14010001, on left bank 0.5 mi west of Grizzly Cow Camp and 14 mi north of Glenwood Springs.

DRAINAGE AREA.--5.73 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1976 to September 1996 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 10,435 ft above sea level, from topographic map. Prior to Oct. 19, 1978, at site 600 ft upstream, at datum 25.33 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	2.7	1.0	.63	.30	.21	.16	.72	61	11	1.6	1.1
2	2.1	2.8	.95	.58	.27	.21	.17	.75	77	10	1.6	1.1
3	2.0	2.7	.92	.56	.24	.20	.17	.80	91	9.2	1.5	1.1
4	2.1	1.4	.85	.58	.24	.20	.17	.96	112	8.6	1.6	1.1
5	1.9	1.3	.81	.58	.24	.21	.17	1.3	132	7.7	1.5	2.4
6	2.6	1.2	1.1	.51	.24	.20	.17	1.8	148	7.1	1.3	2.4
7	2.0	1.1	1.0	.45	.23	.19	.18	2.4	150	6.7	1.3	1.7
8	2.0	1.1	.64	.43	.23	.17	.23	6.7	151	6.2	1.3	1.5
9	2.0	1.1	.72	.41	.23	.17	.32	e13	140	6.1	1.3	1.2
10	1.9	1.7	.91	.42	.22	.16	.35	e25	129	5.3	1.3	1.3
11	1.9	1.4	.84	.41	.22	.16	.33	e45	117	4.5	1.3	1.4
12	1.9	1.2	.76	.39	.25	.16	.30	e80	110	4.5	1.4	1.5
13	1.8	1.1	.75	.38	.26	.16	.30	111	103	4.3	1.4	1.8
14	1.7	1.1	.89	.36	.26	.16	.29	e122	93	4.1	1.4	1.7
15	1.7	1.1	.77	.35	.27	.15	.28	e140	80	3.9	1.4	1.5
16	1.6	1.1	.72	.35	.27	.15	.29	e170	66	2.8	1.4	1.3
17	1.5	1.1	.68	.39	.27	.15	.30	e200	61	3.0	1.4	1.6
18	1.5	1.1	.66	.37	.28	.15	.30	200	54	2.7	1.7	
19	1.5	1.0	.64	.38	.29	.15	.32	206	46	2.3	1.5	1.6
20	1.4	1.0	.61	.37	.30	.15	.33	155	41	2.2	1.5	1.6
21	1.4	.99	.59	.35	.32	.15	.34	149	41	2.3	1.5	1.5
22	1.6	.95	.56	.36	.31	.15	.33	146	43	2.4	1.4	1.3
23	1.9	.94	.56	.37	.27	.15	.33	144	34	2.3	1.5	1.3
24	1.7	.95	.54	.36	.24	.14	.39	137	26	2.1	1.2	1.8
25	1.3	.91	.55	.35	.23	.14	.50	117	22	2.0	1.2	1.6
26	1.2	.94	.56	.33	.23	.14	.49	79	20	1.9	1.3	1.5
27	1.5	1.1	.55	.32	.22	.14	.58	56	19	1.9	1.3	1.5
28	1.2	.87	.52	.32	.22	.15	.62	40	18	5.7	1.3	1.5
29	1.2	.81	.52	.30	.22	.15	.67	36	15	4.0	1.3	1.5
30	1.2	1.0	.52	.29	---	.15	.70	39	13	2.2	1.2	1.5
31	1.4	---	.52	.32	---	.15	---	45	---	1.5	1.1	---
TOTAL	52.8	37.76	22.21	12.57	7.37	5.07	10.08	2470.43	2213	140.5	43.0	45.6
MEAN	1.70	1.26	.72	.41	.25	.16	.34	79.7	73.8	4.53	1.39	1.52
MAX	2.6	2.8	1.1	.63	.32	.21	.70	206	151	11	1.7	2.4
MIN	1.2	.81	.52	.29	.22	.14	.16	.72	13	1.5	1.1	1.1
AC-FT	105	75	44	25	15	10	20	4900	4390	279	85	90

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1996, BY WATER YEAR (WY)

MEAN	2.19	1.54	.96	.55	.41	.37	1.83	41.2	92.5	16.1	2.41	1.80
MAX	7.42	5.07	3.12	2.21	1.90	1.87	10.9	79.7	206	72.0	5.78	5.35
(WY)	1985	1983	1983	1985	1985	1985	1987	1996	1986	1995	1984	1984
MIN	.44	.25	.14	.000	.000	.000	.000	3.12	13.0	1.33	.55	.55
(WY)	1993	1978	1978	1978	1978	1980	1991	1995	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1976 - 1996
ANNUAL TOTAL	7153.55	5060.39	
ANNUAL MEAN	19.6	13.8	13.5
HIGHEST ANNUAL MEAN			23.8
LOWEST ANNUAL MEAN			5.79
HIGHEST DAILY MEAN	266	Jun 17	290
LOWEST DAILY MEAN	e .11	Jan 3	b .00
ANNUAL SEVEN-DAY MINIMUM	.12	Feb 18	Apr 7 1977
INSTANTANEOUS PEAK FLOW		251 May 19	7 1977
INSTANTANEOUS PEAK STAGE		c .15 May 19	Jun 5 1986
ANNUAL RUNOFF (AC-FT)	14190	10040	d 4.99 Jun 5 1986
10 PERCENT EXCEEDS	118	45	9750
50 PERCENT EXCEEDS	1.1	1.2	40
90 PERCENT EXCEEDS	.13	.21	.07

e-Estimated.

a-Also occurred Mar 25-27.

b-No flow many days some years.

c-Maximum gage height, 7.90 ft, May 15, backwater from ice.

d-Maximum gage height observed, 8.64 ft, May 4, 1982, backwater from ice.

## COLORADO RIVER MAIN STEM

**09071750 COLORADO RIVER ABOVE GLENWOOD SPRINGS, CO**  
**WATER-QUALITY RECORDS**

LOCATION.--Lat 39°33'32", long 107°17'25", Garfield County, Hydrologic Unit 14010001, 0.25 mi upstream from No Name Creek and 2.0 mi above Glenwood Springs.

DRAINAGE AREA.--4,556 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1985 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1985 to current year.

WATER TEMPERATURE: December 1985 to current year.

INSTRUMENTATION.--Water-quality monitor since December 1985.

REMARKS.--Discharge obtained by subtracting the flow in Roaring Fork River at Glenwood Springs (station 09085000) from the flow in the Colorado River below Glenwood Springs (station 09085100). Water-quality data collection was moved downstream to the site downstream from No Name Creek previous site 09071100 on Dec. 12, 1985. Water-quality data collection was relocated upstream 0.25 mi above No Name Creek on October 19, 1995. Water-quality data collected at this site are considered equivalent to data collected at old site. Unpublished daily maximum and minimum specific-conductance data available in district office. Daily water temperature records are good. Daily specific-conductance records are good. Interruptions in record are due to equipment malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,740 microsiemens Aug. 21, 1990; minimum, 181 microsiemens June 21, 1996.

WATER TEMPERATURE: Maximum, 22.5°C July 26, 1987; minimum, 0°C on many days during the winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 790 microsiemens, Oct. 25; minimum, 181 microsiemens, June 21.

WATER TEMPERATURE: Maximum, 19.0°C Aug. 3; minimum, 0°C on many days during the winter months.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-	CHARGE,	SPE-	PH	TEMPER-	OXYGEN,	HARD-	CATION	MAGNE-	SODIUM,
		INST.	CUBIC	CIFIC						DIS-	
		FEET	PER	ANCE	DUCT-	(STAND-	ATURE	DIS-	TOTAL	SOLVED	DIS-
			SECOND	(US/CM)	PER	UNITS)	(DEG C)	SOLVED	(MG/L)	(MG/L)	SOLVED
								CACO <sub>3</sub> )	AS CA)	AS MG)	AS NA)
OCT 19...	0930	1300	597	8.3	9.0	9.7	180	53	11	49	
19...	1040	1390	601	8.3	9.5	9.6	180	54	11	48	
NOV 30...	1230	1390	580	8.3	2.0	11.0	170	50	9.9	50	
JAN 30...	1100	1260	578	8.1	0.0	13.8	160	48	9.5	49	
MAR 05...	1150	1370	603	8.2	3.0	9.7	170	51	11	51	
21...	0920	1930	487	8.2	5.0	11.3	130	40	8.2	38	
APR 10...	1330	4580	359	8.1	7.5	10.3	130	37	8.0	18	
MAY 16...	1050	9860	222	8.1	10.0	9.8	88	26	5.5	7.7	
JUN 11...	0905	7600	237	8.1	10.5	9.5	93	28	5.6	9.9	
JUL 12...	1200	3280	360	8.3	16.0	8.4	110	34	6.2	26	
AUG 20...	1445	1630	606	8.6	18.0	8.6	170	52	10	48	
SEP 23...	1245	1390	670	8.6	14.0	9.5	190	57	12	56	
		SODIUM AD-	POTAS- SIUM, SORP- TION	ALKA- LINITY	SULFATE	CHLO- RIDE, DIS- SOLVED	FLUO- RIDE, DIS- SOLVED	SILICA, DIS- SOLVED	SOLIDS, CONSTITUENTS, (MG/L)	SOLIDS, SOLVED (TONS PER AC-FT)	SOLIDS, SOLVED (TONS PER DAY)
		RATIO	(MG/L AS K)	(MG/L AS CACO <sub>3</sub> )	(MG/L AS SO <sub>4</sub> )	(MG/L AS CL)	(MG/L AS F)	(MG/L AS SIO <sub>2</sub> )	(MG/L)		
OCT 19...	2	2.2	--	86	68	0.2	8.4	--	--	0.48	--
19...	2	2.3	118	85	71	0.2	8.4	351	0.44	1320	
NOV 30...	2	2.1	96	77	69	0.3	9.1	325	0.44	1220	
JAN 30...	2	2.1	93	72	75	0.3	9.7	321	0.44	1090	
MAR 05...	2	2.2	94	79	72	0.3	9.0	332	0.45	1230	
21...	1	2.0	83	66	51	0.3	8.0	263	0.36	1370	
APR 10...	0.7	2.2	83	60	20	0.3	8.7	204	0.28	2520	
MAY 16...	0.4	1.2	72	28	7.3	0.1	9.1	128	0.17	3410	
JUN 11...	0.4	1.1	68	29	11	0.1	7.9	133	0.18	2740	
JUL 12...	1	1.7	74	45	32	0.2	7.7	197	0.27	1750	
AUG 20...	2	2.6	103	88	71	0.3	8.7	342	0.47	1510	
SEP 23...	2	2.4	112	96	78	0.3	9.1	378	0.51	1420	

## 09071750 COLORADO RIVER ABOVE GLENWOOD SPRINGS, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER												
NOVEMBER												
1	605	599	602	603	558	583	589	577	581	570	549	560
2	632	605	617	590	563	579	581	571	575	579	550	566
3	642	629	635	601	567	580	581	569	575	581	558	570
4	645	634	642	618	584	599	583	572	578	562	542	554
5	641	623	635	622	585	606	588	572	579	544	532	537
6	623	605	612	630	577	615	581	563	570	573	531	548
7	620	609	614	621	590	604	570	559	563	580	552	570
8	626	612	619	616	579	596	570	563	567	571	546	557
9	628	605	614	611	578	594	578	568	574	569	535	552
10	618	607	613	608	561	583	577	566	571	572	535	555
11	640	609	616	582	543	566	578	569	573	555	536	547
12	635	607	618	590	567	576	577	569	573	553	535	545
13	632	593	607	578	565	573	595	577	587	576	544	562
14	600	560	575	565	533	553	595	572	581	593	561	581
15	579	562	570	537	529	533	596	571	581	599	570	587
16	586	578	582	545	537	541	650	593	608	591	560	577
17	612	586	593	554	540	548	669	613	639	573	541	558
18	612	593	597	563	545	557	679	639	653	578	541	560
19	627	592	610	562	552	556	666	622	635	593	574	586
20	669	613	641	569	553	562	698	624	658	595	566	582
21	713	664	681	572	557	565	668	626	656	586	565	579
22	737	708	720	572	558	566	661	629	646	584	560	570
23	726	699	711	571	558	566	688	629	658	580	565	572
24	738	697	718	572	564	567	687	650	666	577	563	571
25	790	738	768	577	564	572	719	660	688	578	564	572
26	766	733	752	584	564	577	699	666	686	603	572	581
27	742	696	724	574	565	571	706	644	686	638	574	594
28	734	641	685	575	562	568	685	643	664	638	590	618
29	661	627	646	582	572	575	694	620	662	590	564	580
30	635	592	615	590	571	580	636	603	619	602	565	583
31	621	595	606	---	---	---	609	561	584	604	583	592
MONTH	790	560	640	630	529	574	719	559	614	638	531	570
FEBRUARY												
MARCH												
APRIL												
MAY												
1	617	533	594	647	609	626	416	407	410	354	350	351
2	643	535	583	636	578	601	409	391	405	351	343	347
3	674	631	651	596	570	584	398	370	387	355	340	345
4	702	646	677	603	563	580	380	368	375	356	334	344
5	664	604	636	625	585	607	457	375	411	334	307	321
6	604	580	589	623	610	613	444	425	433	308	279	300
7	597	581	588	623	616	619	425	415	419	279	267	273
8	604	581	593	629	615	621	418	409	412	270	255	262
9	614	567	596	651	620	632	410	380	397	263	252	257
10	611	578	597	632	618	624	380	326	351	256	247	252
11	635	560	595	631	619	625	326	313	319	255	237	245
12	634	576	602	651	614	627	329	316	321	259	242	250
13	658	598	636	615	583	594	354	329	338	252	227	237
14	685	598	636	583	569	574	354	341	346	231	210	222
15	643	507	583	580	555	570	370	352	361	228	211	220
16	620	502	579	555	504	519	378	364	371	225	212	218
17	626	453	595	508	488	500	375	364	368	227	208	216
18	622	573	599	489	482	485	366	354	358	216	207	212
19	600	585	591	493	486	490	362	351	356	215	205	210
20	592	581	587	488	473	480	378	359	367	214	199	207
21	592	569	584	494	476	483	384	372	378	228	207	214
22	584	571	579	487	474	481	386	376	380	232	222	225
23	618	562	588	474	438	450	390	378	383	239	229	233
24	640	591	614	443	429	438	390	383	387	249	237	245
25	640	603	618	445	438	440	386	345	366	245	240	242
26	629	598	614	452	442	446	345	315	323	243	231	236
27	627	605	613	453	446	449	322	296	302	245	237	242
28	635	605	616	455	445	450	326	320	322	267	245	258
29	642	594	623	445	428	439	343	326	332	274	267	270
30	---	---	---	428	410	419	353	339	346	280	271	274
31	---	---	---	413	407	409	---	---	---	284	269	277
MONTH	702	453	605	651	407	531	457	296	367	356	199	258

## COLORADO RIVER MAIN STEM

**09071750 COLORADO RIVER ABOVE GLENWOOD SPRINGS, CO--Continued**

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	277	271	274	250	237	246	507	495	502	555	545	550
2	277	269	274	266	250	260	502	497	500	548	543	546
3	273	258	265	288	265	273	524	501	510	552	546	549
4	265	245	255	---	---	---	517	507	511	556	545	552
5	254	239	245	---	---	---	521	504	513	568	548	562
6	244	229	235	---	---	---	522	503	513	591	567	580
7	238	226	232	---	---	---	531	520	524	603	584	594
8	239	228	233	---	---	---	542	523	535	593	584	588
9	237	229	233	---	---	---	543	535	538	600	585	594
10	237	229	233	---	---	---	586	540	564	614	581	596
11	248	237	241	---	---	---	570	546	561	619	601	610
12	251	236	244	---	---	---	588	546	576	623	605	617
13	254	243	249	388	370	379	607	561	584	617	601	609
14	255	242	248	411	383	393	---	---	---	625	603	616
15	245	235	238	401	393	398	---	---	---	610	591	596
16	240	227	232	441	397	414	---	---	---	606	585	597
17	241	228	234	447	435	442	---	---	---	593	584	588
18	234	216	225	444	419	431	---	---	---	602	591	598
19	218	205	213	427	406	421	---	---	---	605	599	601
20	213	203	209	414	405	408	---	---	---	634	603	623
21	206	181	193	418	387	410	606	589	596	642	631	636
22	195	184	190	406	376	387	618	601	612	646	640	642
23	194	184	188	445	381	400	601	575	583	657	638	648
24	194	188	190	456	395	429	575	546	560	650	627	643
25	215	194	207	472	427	446	548	511	534	630	615	625
26	219	214	217	491	430	463	556	515	538	615	584	598
27	226	219	223	496	475	483	551	541	546	585	576	581
28	224	217	221	507	496	504	576	548	563	590	576	581
29	228	220	224	507	501	504	550	536	544	596	578	589
30	237	228	232	610	498	517	548	541	543	586	577	582
31	---	---	---	508	491	499	547	541	545	---	---	---
MONTH	277	181	230	---	---	---	---	---	---	657	543	596

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	11.0	9.7	10.2	7.5	7.1	7.3	2.7	1.8	2.3	.0	.0	.0
2	11.5	10.1	10.7	7.2	4.9	6.0	2.9	1.9	2.5	.0	.0	.0
3	11.9	10.1	10.9	5.4	2.9	4.1	2.8	1.7	2.4	.0	.0	.0
4	11.6	9.9	10.7	3.9	2.3	3.2	2.6	2.1	2.4	.0	.0	.0
5	10.1	8.6	9.3	3.1	1.9	2.6	4.0	2.6	3.4	.0	.0	.0
6	8.6	7.1	7.9	3.9	2.8	3.3	4.4	3.8	4.2	.0	.0	.0
7	8.9	7.2	7.8	4.6	3.9	4.2	4.2	2.9	3.5	.0	.0	.0
8	9.7	8.0	8.7	4.7	3.6	4.3	3.1	1.9	2.6	.0	.0	.0
9	9.9	8.2	8.9	4.8	4.1	4.5	2.6	1.5	2.1	.0	.0	.0
10	10.0	8.5	9.0	4.6	4.0	4.3	2.1	1.4	1.9	.1	.0	.0
11	10.5	8.9	9.6	4.2	2.3	3.2	2.1	1.3	1.8	.0	.0	.0
12	10.1	9.2	9.8	3.2	2.2	2.5	2.7	2.1	2.3	.0	.0	.0
13	10.4	8.5	9.4	4.7	3.1	3.6	3.5	2.7	3.2	.0	.0	.0
14	9.2	7.5	8.4	6.1	4.7	5.2	3.8	2.9	3.5	.0	.0	.0
15	9.0	7.4	8.3	6.2	5.1	5.7	3.2	1.6	2.3	.0	.0	.0
16	9.4	7.8	8.5	6.1	4.4	5.2	2.0	.7	1.3	.2	.0	.0
17	9.5	7.9	8.8	5.2	4.1	4.7	.8	.0	.2	.1	.0	.0
18	9.8	8.0	8.8	5.1	3.7	4.5	.0	.0	.0	.0	.0	.0
19	9.6	7.7	8.7	4.5	3.2	3.9	.0	.0	.0	.0	.0	.0
20	8.8	6.4	7.6	4.2	3.1	3.7	.0	.0	.0	.0	.0	.0
21	7.9	6.2	6.8	4.1	3.0	3.6	.0	.0	.0	.0	.0	.0
22	7.9	5.9	6.8	4.2	3.6	3.9	.0	.0	.0	.0	.0	.0
23	6.1	4.9	5.4	4.2	3.5	4.0	.0	.0	.0	.0	.0	.0
24	5.2	4.2	4.6	4.3	3.0	3.6	.0	.0	.0	.0	.0	.0
25	5.0	4.4	4.7	3.6	2.6	3.2	.0	.0	.0	.0	.0	.0
26	5.4	4.7	5.1	3.8	2.8	3.3	.0	.0	.0	.0	.0	.0
27	5.7	4.9	5.2	3.0	2.0	2.5	.0	.0	.0	.0	.0	.0
28	6.0	4.8	5.6	2.0	.9	1.4	.0	.0	.0	.0	.0	.0
29	5.7	4.6	5.0	2.2	1.0	1.2	.0	.0	.0	.0	.0	.0
30	7.1	5.7	6.1	2.3	1.3	1.8	.0	.0	.0	.0	.0	.0
31	7.4	6.8	7.2	---	---	---	.0	.0	.0	.0	.0	.0
MONTH	11.9	4.2	7.9	7.5	.9	3.8	4.4	.0	1.4	.2	.0	.0

## 09071750 COLORADO RIVER ABOVE GLENWOOD SPRINGS, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY												
MARCH												
1	.3	.0	.1	1.2	.1	.6	7.5	6.7	7.2	8.7	7.4	8.0
2	.0	.0	.0	1.6	.3	.8	7.5	6.7	7.0	8.9	7.5	8.1
3	.0	.0	.0	2.4	.9	1.4	7.6	6.6	7.3	9.1	7.6	8.4
4	.0	.0	.0	3.0	1.8	2.2	6.7	5.6	6.1	10.0	8.4	9.0
5	.1	.0	.0	3.7	3.0	3.4	7.1	5.9	6.3	10.6	9.0	9.7
6	.4	.0	.1	4.1	3.3	3.8	7.5	6.2	6.8	10.6	9.0	9.8
7	.4	.0	.1	3.9	2.3	3.1	7.7	6.5	6.5	10.2	8.8	9.6
8	.5	.0	.1	3.3	2.3	2.8	8.7	7.5	7.9	10.4	8.7	9.5
9	.5	.0	.1	4.6	3.2	3.8	9.0	7.7	8.3	10.3	9.1	9.5
10	.5	.0	.1	5.4	4.4	4.9	9.0	6.7	7.5	10.0	8.5	9.3
11	.4	.0	.0	5.6	4.5	5.2	7.6	6.2	6.8	10.6	8.5	9.4
12	.1	.0	.0	6.3	4.9	5.7	6.4	5.0	5.7	11.0	9.5	10.2
13	.2	.0	.0	6.3	4.9	5.5	6.2	5.4	5.7	11.2	9.8	10.4
14	.4	.0	.1	6.4	5.3	5.7	5.6	4.4	5.0	11.1	9.7	10.2
15	.5	.0	.1	6.6	5.3	6.1	6.6	4.4	5.2	10.6	9.2	9.9
16	.5	.0	.1	7.1	5.9	6.3	7.9	6.4	6.8	10.9	9.6	10.1
17	.7	.0	.2	7.2	5.5	6.1	8.1	6.6	7.3	10.9	10.0	10.4
18	.4	.0	.1	5.9	3.6	4.5	6.8	4.8	5.9	10.5	9.3	9.8
19	.7	.0	.2	4.8	2.7	3.6	5.5	4.2	4.9	10.5	9.4	9.9
20	.5	.1	.2	5.5	3.6	4.4	4.6	3.4	4.0	10.5	9.2	9.8
21	.6	.0	.2	6.5	4.5	5.4	6.3	4.4	5.1	10.0	8.3	9.1
22	1.1	.6	.8	6.8	5.2	6.0	6.3	5.4	5.9	10.4	9.1	9.7
23	1.1	.2	.5	6.8	5.8	6.3	8.4	6.3	6.9	10.4	9.7	10.0
24	1.4	.3	.7	5.8	4.4	4.9	9.9	8.2	8.8	10.0	9.2	9.5
25	1.9	.5	1.0	4.4	3.2	3.6	9.9	9.1	9.5	9.6	8.6	9.0
26	2.0	.7	1.2	4.2	2.4	3.3	9.8	7.4	8.3	8.9	8.2	8.5
27	.9	.1	.5	5.3	3.6	4.4	8.8	7.2	8.0	8.2	7.6	7.9
28	1.1	.1	.6	6.1	4.5	5.3	8.5	6.2	7.1	8.2	7.3	7.7
29	1.5	.1	.7	7.1	5.4	6.2	6.6	4.4	5.5	10.7	7.7	8.6
30	---	---	---	7.3	6.4	6.9	7.9	5.8	6.5	11.9	10.2	10.9
31	---	---	---	7.6	6.6	7.2	---	---	---	12.1	10.3	11.2
MONTH	2.0	.0	.3	7.6	.1	4.5	9.9	3.4	6.7	12.1	7.3	9.5
JUNE												
JULY												
1	12.1	10.2	11.1	15.8	13.6	14.6	18.9	17.6	18.1	17.6	16.3	16.9
2	12.4	10.3	11.3	16.3	13.5	14.7	18.9	18.4	18.6	17.3	16.1	16.7
3	12.7	10.8	11.7	16.6	14.3	15.3	19.0	17.9	18.4	17.0	15.8	16.3
4	12.6	11.2	11.8	16.6	14.7	15.5	18.7	17.4	17.9	16.9	15.9	16.4
5	12.4	11.0	11.6	17.0	15.1	15.9	17.7	16.6	17.0	17.1	15.7	16.3
6	12.4	10.8	11.5	17.1	15.6	16.2	17.8	16.8	17.2	16.2	14.7	15.4
7	12.2	10.5	11.2	16.5	14.9	15.6	18.2	17.2	17.6	15.6	14.5	14.9
8	12.2	11.1	11.6	16.5	14.6	15.6	18.8	16.9	17.8	16.0	15.0	15.6
9	11.9	11.2	11.5	16.1	14.5	15.3	19.1	17.9	18.4	16.3	15.2	15.7
10	11.6	11.0	11.3	16.8	15.1	15.8	18.6	17.3	17.9	16.7	15.4	16.1
11	11.6	10.3	11.0	17.6	15.8	16.5	18.4	17.1	17.7	17.0	15.8	16.5
12	11.5	10.6	11.0	17.7	16.0	16.6	18.5	16.9	17.7	16.8	15.7	16.3
13	12.4	11.3	11.7	17.6	16.2	16.7	18.1	17.1	17.6	16.8	15.2	16.1
14	12.6	11.7	12.1	17.7	16.4	17.0	---	---	---	15.5	14.5	15.0
15	12.2	11.0	11.4	17.9	16.5	17.0	---	---	---	15.4	14.4	14.9
16	11.8	9.8	10.8	17.5	15.9	16.5	---	---	---	15.3	14.0	14.7
17	12.9	11.1	11.7	18.9	17.1	17.8	---	---	---	14.6	13.1	13.9
18	13.7	11.8	12.6	18.9	17.6	18.2	---	---	---	13.4	11.3	12.3
19	13.8	12.1	12.8	18.7	16.9	17.7	---	---	---	11.8	10.7	11.2
20	13.8	12.4	13.0	18.8	17.6	18.3	---	---	---	11.7	10.3	10.8
21	13.9	12.7	13.1	18.8	17.8	18.3	18.2	17.4	17.8	11.9	10.7	11.4
22	13.7	12.6	13.1	18.8	17.6	18.1	18.1	16.9	17.5	12.6	11.5	12.0
23	13.7	11.8	12.7	18.4	17.3	17.8	18.3	17.1	17.6	13.5	12.5	12.9
24	14.4	12.0	13.2	18.1	17.1	17.7	18.5	17.6	18.1	14.0	12.6	13.3
25	14.5	12.7	13.6	18.2	17.1	17.6	18.9	17.0	17.9	14.0	12.2	13.3
26	14.8	13.0	13.9	17.6	16.6	17.2	18.9	17.4	18.1	12.2	9.9	11.0
27	14.6	13.2	13.7	17.7	16.8	17.2	18.7	17.3	17.9	9.9	8.3	9.2
28	13.7	12.4	12.9	18.3	17.3	17.8	18.7	16.8	17.4	9.8	8.8	9.2
29	14.6	12.2	13.2	18.2	16.6	17.3	17.7	16.4	17.0	11.0	9.8	10.4
30	15.4	13.3	14.2	17.8	16.3	17.0	17.7	16.5	17.1	11.7	10.8	11.2
31	---	---	---	18.5	17.5	18.0	17.8	16.5	17.0	---	---	---
MONTH	15.4	9.8	12.2	18.9	13.5	16.8	---	---	---	17.6	8.3	13.9

## ROARING FORK RIVER BASIN

**09073300 ROARING FORK RIVER ABOVE DIFFICULT CREEK NEAR ASPEN, CO**

LOCATION.--Lat 39°08'28", long 106°46'25", Pitkin County, Hydrologic Unit 14010004, on left bank in the White River National Forest at Difficult Creek Campground, 0.45 mi upstream from Difficult Creek tributary and 4.25 mi southeast of Aspen.

DRAINAGE AREA.--75.8 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1979 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 8,120 ft above sea level, from topographic map.

REMARKS.-- Records good except for estimated daily discharges, which are poor. Transmountain diversion 11 mi upstream through Twin Lakes Tunnel to Arkansas River basin since May 24, 1935 (34,850 acre-ft diverted during current year, provided by Colorado Division of Water Resources). Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	31	26	e17	e13	e17	e26	32	142	391	70	26
2	41	28	26	e16	e14	e16	27	35	158	364	66	26
3	45	28	26	e15	e13	e17	28	47	188	343	69	25
4	48	28	e25	e16	e13	e18	27	64	231	343	67	24
5	47	29	e25	e17	e15	e17	24	88	272	368	59	25
6	45	30	e24	e16	e16	e17	27	107	287	331	53	32
7	41	30	e24	e16	e16	e16	29	112	286	326	50	35
8	40	29	e24	e16	e16	e17	33	124	291	298	48	30
9	42	29	e23	e17	e16	e17	47	147	286	272	48	34
10	43	29	e22	e17	e17	e18	53	151	276	262	47	35
11	e40	30	e22	e16	e15	e18	53	155	322	250	45	34
12	e43	29	e22	e15	e15	e19	43	193	505	235	42	34
13	e44	29	e21	e15	e14	e17	40	231	657	216	40	41
14	e40	29	e20	e15	e16	e17	31	254	747	210	39	41
15	41	28	e19	e16	e16	e18	34	265	845	185	38	50
16	e37	28	e20	e16	e16	e19	33	297	875	200	38	47
17	e35	28	e19	e15	e17	e18	33	304	890	205	37	42
18	e34	26	e17	e14	e17	e18	31	283	803	193	37	39
19	e33	27	e15	e15	e16	e17	28	307	752	189	37	41
20	e32	27	e16	e16	e18	e18	26	299	647	151	36	42
21	e35	27	e16	e14	e20	e20	24	261	718	137	33	41
22	e35	28	e14	e16	e19	e24	21	256	813	122	33	43
23	e32	28	e13	e15	e18	e24	21	251	608	102	36	51
24	e32	24	e12	e15	e18	e21	27	222	520	94	31	49
25	e32	26	e14	e15	e17	e21	41	201	497	87	30	43
26	31	27	e15	e14	e17	e20	43	182	465	82	31	41
27	31	25	e14	e13	e17	e21	46	145	526	77	31	40
28	30	29	e15	e14	e18	e22	39	128	472	76	30	43
29	30	28	e16	e15	e18	e23	34	117	408	104	29	48
30	30	26	e16	e15	---	e24	31	125	401	88	28	45
31	30	---	e17	e15	---	e25	---	131	---	76	27	---
TOTAL	1158	840	598	477	471	594	1000	5514	14888	6377	1305	1147
MEAN	37.4	28.0	19.3	15.4	16.2	19.2	33.3	178	496	206	42.1	38.2
MAX	48	31	26	17	20	25	53	307	890	391	70	51
MIN	30	24	12	13	13	16	21	32	142	76	27	24
AC-FT	2300	1670	1190	946	934	1180	1980	10940	29530	12650	2590	2280

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1996, BY WATER YEAR (WY)

MEAN	29.0	21.3	17.1	15.1	14.4	15.4	30.3	147	393	195	62.3	38.5
MAX	53.3	43.3	31.0	24.4	20.6	22.6	53.8	512	939	872	145	83.7
(WY)	1987	1985	1985	1985	1985	1986	1985	1984	1984	1995	1995	1986
MIN	15.8	12.5	10.9	10.6	10.8	9.60	14.9	57.4	103	41.8	21.2	17.7
(WY)	1995	1995	1995	1995	1981	1981	1983	1995	1989	1981	1981	1981

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1980 - 1996

ANNUAL TOTAL	57072.5	34369	a132
ANNUAL MEAN	156	93.9	194
HIGHEST ANNUAL MEAN			35.7
LOWEST ANNUAL MEAN			1981
HIGHEST DAILY MEAN	1680	Jul 12	1930
LOWEST DAILY MEAN	b9.0	Jan 1	c8.0
ANNUAL SEVEN-DAY MINIMUM	9.4	Jan 14	d9.2
INSTANTANEOUS PEAK FLOW		1210	2350
INSTANTANEOUS PEAK STAGE		4.06	5.10
ANNUAL RUNOFF (AC-FT)	113200	68170	a95630
10 PERCENT EXCEEDS	613	284	182
50 PERCENT EXCEEDS	29	31	26
90 PERCENT EXCEEDS	12	16	13

e-Estimated.

a-Includes Twin Lakes Tunnel.

b-Also occurred Jan 17-19.

c-Also occurred Dec 31, 1994.

d-From rating curve extended above 910 ft<sup>3</sup>/s.

## ROARING FORK RIVER BASIN

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**09073400 ROARING FORK RIVER NEAR ASPEN, CO**

LOCATION--Lat 39°10'48", long 106°48'05", Pitkin County, Hydrologic Unit 14010004, on right bank 25 ft upstream from private bridge, 115 ft upstream from Salvation ditch headgate, 1.0 mi southeast of Aspen, and 2.0 mi upstream from Hunter Creek.

DRAINAGE AREA.--108 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1964 to current year.

GAGE--Water-stage recorder with satellite telemetry. Datum of gage is 8,014.01 ft above sea level. Prior to Apr. 25, 1968, at site 85 ft upstream, at datum 1.16 ft. higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. Transmountain diversion 14 mi upstream through Twin Lakes tunnel to Arkansas River basin since May 24, 1935, (34,850 acre-ft diverted during current year, provided by Colorado Division of Water Resources). Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	50	41	33	31	e27	36	61	269	433	121	64
2	62	47	41	33	30	30	41	63	291	408	116	64
3	67	38	41	33	31	30	43	81	339	370	114	62
4	70	42	41	33	e29	30	43	103	391	353	112	62
5	68	41	41	33	32	29	41	129	448	373	106	62
6	64	45	41	33	31	30	42	153	481	343	100	67
7	63	49	41	33	31	29	46	164	474	327	97	70
8	61	48	42	33	30	29	49	181	480	302	94	66
9	64	47	41	33	30	30	64	203	476	274	91	67
10	65	47	41	33	30	29	72	212	458	256	87	67
11	68	43	41	e29	30	29	76	211	460	248	83	66
12	71	44	41	e29	30	29	66	250	659	233	80	66
13	76	44	41	e29	31	29	61	296	852	220	78	71
14	67	45	41	e29	32	29	52	336	972	208	76	70
15	68	48	e36	e30	31	29	51	364	1130	197	75	74
16	68	48	41	e30	30	29	55	422	1010	201	75	73
17	65	48	39	e30	30	29	56	470	1040	206	74	71
18	64	44	37	e27	30	29	55	434	957	202	73	69
19	62	45	36	e28	30	28	50	479	915	214	73	70
20	57	45	34	e29	30	30	47	498	810	184	73	71
21	53	44	34	e28	32	31	46	418	834	174	71	69
22	52	45	35	e29	31	31	43	411	953	164	71	71
23	46	43	34	e29	28	32	44	413	801	158	72	74
24	46	40	33	e29	31	32	50	364	626	152	70	74
25	49	43	33	e29	32	31	69	339	542	146	70	70
26	51	43	34	e26	32	30	71	325	523	141	69	68
27	50	42	33	e25	e28	31	77	266	537	136	70	66
28	48	e38	34	e26	28	33	71	247	527	131	68	68
29	49	42	34	e28	30	33	62	242	477	143	67	70
30	48	42	33	e29	---	33	60	252	456	137	66	70
31	48	---	33	30	---	34	---	257	---	126	65	---
TOTAL	1854	1330	1168	928	881	934	1639	8644	19188	7160	2557	2052
MEAN	59.8	44.3	37.7	29.9	30.4	30.1	54.6	279	640	231	82.5	68.4
MAX	76	50	42	33	32	34	77	498	1130	433	121	74
MIN	46	38	33	25	28	27	36	61	269	126	65	62
AC-F'T	3680	2640	2320	1840	1750	1850	3250	17150	38060	14200	5070	4070

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1996, BY WATER YEAR (WY)

MEAN	43.4	34.5	29.6	26.5	25.3	27.0	48.4	198	422	208	69.3	50.4
MAX	80.0	61.6	47.5	37.0	35.9	41.7	79.7	554	1017	1057	186	87.1
(WY)	1966	1985	1987	1985	1989	1986	1985	1984	1984	1995	1995	1986
MIN	23.5	20.7	18.6	17.0	15.4	16.6	26.2	97.0	119	48.4	29.3	23.8
(WY)	1978	1978	1977	1977	1977	1977	1973	1983	1977	1977	1977	1977

## SUMMARY STATISTICS

FOR 1995 CALENDAR YEAR

FOR 1996 WATER YEAR

WATER YEARS 1965 - 1996

ANNUAL TOTAL	75772		48335			
ANNUAL MEAN	208		132		<sup>a</sup> 152	
HIGHEST ANNUAL MEAN					229	1984
LOWEST ANNUAL MEAN					42.1	1977
HIGHEST DAILY MEAN	1900	Jul 10	1130	Jun 15	1900	Jul 10 1995
LOWEST DAILY MEAN	e 17	Feb 12	e 25	Jan 27	12	Nov 28 1976
ANNUAL SEVEN-DAY MINIMUM	20	Feb 6	27	Jan 23	15	Feb 1 1977
INSTANTANEOUS PEAK FLOW			1180	Jun 15	b 2230	Jul 11 1995
INSTANTANEOUS PEAK STAGE			4.34	Jun 15	5.97	Jul 11 1995
ANNUAL RUNOFF (AC-FT)	150300		95870		<sup>a</sup> 110100	
10 PERCENT EXCEEDS	797		396		253	
50 PERCENT EXCEEDS	48		58		39	
90 PERCENT EXCEEDS	23		30		22	

e-Estimated.

a-Includes Twin Lakes Tunnel.

b-Also occurred Jun 9, 1985.

## ROARING FORK RIVER BASIN

## 09074000 HUNTER CREEK NEAR ASPEN, CO

LOCATION.--Lat 39°12'21", long 106°47'49", Pitkin County, Hydrologic Unit 14010004, on right bank 280 ft upstream from headgate of Red Mountain ditch, 1.5 mi upstream from mouth, and 1.5 mi northeast of Aspen.

DRAINAGE AREA.--41.1 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1950 to September 1956, September 1969 to current year. Statistical summary computed for 1980 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 8,610 ft above sea level, from topographic map. Prior to Sept. 1, 1969, at site 220 ft downstream, at different datum, Sept. 1, 1969 to July 10, 1991 at datum 1.0 ft lower.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Transmountain diversion upstream from station to Charles H. Boustead tunnel by feeder conduit. Several small diversions upstream from station for irrigation of hay meadows upstream and downstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	14	13	e7.5	6.6	5.8	11	32	258	239	47	13
2	20	11	12	e7.5	6.6	5.8	14	33	305	211	46	12
3	19	12	13	e7.6	6.4	5.9	15	41	359	202	43	11
4	20	15	11	e7.6	6.1	5.8	13	60	469	189	43	e11
5	16	15	12	e7.5	6.8	5.7	13	95	583	194	41	e12
6	13	13	11	e7.3	7.0	5.3	14	123	627	179	35	e14
7	17	10	9.6	e7.5	7.7	5.2	15	152	626	160	34	e15
8	20	11	e9.7	e7.2	6.5	5.5	19	178	621	149	32	e12
9	17	11	e9.4	e7.2	6.4	5.2	29	199	624	136	31	e11
10	19	12	e9.4	e7.2	6.6	5.8	35	204	620	105	29	e11
11	19	e12	e9.4	e6.9	6.6	6.5	37	227	560	61	e27	e12
12	21	12	e9.2	e6.8	6.8	6.6	27	324	505	57	e26	e14
13	25	11	e9.2	e6.8	6.3	6.3	25	396	490	54	e25	e18
14	23	11	e9.1	e6.8	6.5	6.2	27	404	468	55	e25	e14
15	21	11	e8.1	e7.0	6.9	6.1	27	417	605	55	e25	e18
16	20	11	e8.9	e7.2	6.8	5.7	21	553	623	66	e24	e17
17	19	10	e8.4	e7.4	6.2	6.8	22	590	491	78	e24	e16
18	18	9.9	e7.2	e6.7	6.4	6.3	21	498	460	72	e24	e18
19	17	9.7	e7.1	e7.0	6.0	7.3	22	557	418	79	e23	29
20	14	9.1	e7.3	e7.1	6.7	6.7	21	504	402	64	e22	26
21	16	9.0	e7.5	e6.9	7.5	7.6	18	407	510	59	e19	26
22	14	8.9	e7.0	e7.2	8.6	8.6	17	423	595	52	18	35
23	13	8.5	e6.5	7.1	7.2	9.1	17	425	416	49	19	46
24	15	7.7	e6.2	7.7	6.5	7.8	28	366	346	50	17	38
25	15	11	e7.3	7.7	6.7	7.4	42	341	322	50	16	32
26	13	12	e7.4	7.1	6.7	8.6	45	318	307	50	16	28
27	12	9.6	e7.4	7.1	5.9	7.6	45	236	358	49	16	25
28	12	15	e8.0	6.7	5.7	6.9	39	195	342	46	15	27
29	12	e18	e8.0	6.9	6.0	7.7	36	171	292	76	14	34
30	12	e15	e7.9	7.2	---	9.1	30	201	263	69	13	32
31	12	---	e7.7	7.2	---	10	---	217	---	55	14	---
TOTAL	524	345.4	274.9	222.6	192.7	210.9	745	8887	13865	3010	803	627
MEAN	16.9	11.5	8.87	7.18	6.64	6.80	24.8	287	462	97.1	25.9	20.9
MAX	25	18	13	7.7	8.6	10	45	590	627	239	47	46
MIN	12	7.7	6.2	6.7	5.7	5.2	11	32	258	46	13	11
AC-FT	1040	685	545	442	382	418	1480	17630	27500	5970	1590	1240

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1996, BY WATER YEAR (WY)

MEAN	15.7	10.5	7.22	6.07	5.64	6.34	19.6	121	218	83.2	31.9	19.0
MAX	32.7	25.1	14.4	11.3	9.21	9.86	40.8	287	462	271	74.4	39.8
(WY)	1985	1985	1985	1987	1985	1989	1989	1996	1996	1995	1995	1984
MIN	5.35	3.32	2.33	2.74	2.89	3.66	7.68	44.8	72.6	30.4	10.6	7.03
(WY)	1990	1990	1981	1981	1990	1983	1995	1989	1994	1980	1980	1980

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1980 - 1996
ANNUAL TOTAL	22129.1	29707.5	
ANNUAL MEAN	60.6	81.2	a45.4
HIGHEST ANNUAL MEAN			81.2
LOWEST ANNUAL MEAN			27.2
HIGHEST DAILY MEAN	677	Jun 17	786 Jun 6 1988
LOWEST DAILY MEAN	e3.6	Jan 1	b5.2 Mar 7
ANNUAL SEVEN-DAY MINIMUM	4.0	Jan 11	c1.8 Dec 20 1980
INSTANTANEOUS PEAK FLOW			d1.9 Dec 20 1980
INSTANTANEOUS PEAK STAGE		836 Jun 15	d1170 Jun 8 1985
ANNUAL RUNOFF (AC-FT)	43890	2.98 Jun 15	f2.33 Jun 8 1985
10 PERCENT EXCEEDS	201	58920	32860
50 PERCENT EXCEEDS	13	341	120
90 PERCENT EXCEEDS	4.7	15	13
		6.7	4.9

e-Estimated.

a-Average discharge for 16 years (water years 1951-1956, 1970-1979), 50.7 ft<sup>3</sup>/s; 36730 acre-ft/yr, prior to diversion through Charles H. Boustead tunnel.

b-Also occurred Mar 9.

c-Also occurred Dec 21-22, 1980.

d-From rating curve extended above 300 ft<sup>3</sup>/s.

f-Maximum gage height for period of record, 4.30 ft, Nov 30, 1984, backwater from ice.

**09080190 RUEDI RESERVOIR NEAR BASALT, CO**

LOCATION.--Lat 39°21'50", long 106°49'05", in NW<sup>1/4</sup> sec.18, T.8 S., R.84 W., Pitkin County, Hydrologic Unit 14010004, in gatehouse of Ruedi Dam just upstream from Rocky Fork Creek and 13 mi east of Basalt.

DRAINAGE AREA.--223 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 7766.00 ft above sea level, (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above sea level.

REMARKS.--Reservoir is formed by an earthfill dam. Storage began in May 1968; dam completed July 16, 1968. Capacity, 102,300 acre-ft, 1969 survey, between elevations 7,540.00 ft, sill of auxiliary outlet and 7,766.00 ft, crest of spillway. Dead storage below elevation 7,540.00 ft, 61 acre-ft. Figures given are total contents.

COOPERATION.--Records provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 103,930 acre-ft, July 14, 1995, elevation, 7,767.55 ft; minimum after first filling, 32,430 acre-ft, Apr. 24, 1996, elevation, 7,670.17 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 99,610 acre-ft, Aug. 13, elevation, 7,763.21 ft; minimum contents, 32,430 acre-ft, Apr. 24, elevation, 7,670.17 ft.

MONTHEND ELEVATION IN FEET ABOVE SEA LEVEL AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30 . . . . .	7,763.21	99,610	
Oct. 31 . . . . .	7,756.96	93,610	-6,000
Nov. 30 . . . . .	7,749.74	86,980	-6,630
Dec. 31 . . . . .	7,737.66	76,560	-10,420
CAL YR 1995. . . . .			+9,140
Jan. 31 . . . . .	7,723.80	65,650	-10,910
Feb. 29 . . . . .	7,707.26	53,960	-11,690
Mar. 31 . . . . .	7,684.04	39,760	-14,200
Apr. 30 . . . . .	7,670.93	32,810	-6,950
May 31 . . . . .	7,717.80	61,260	+28,450
June 30 . . . . .	7,754.85	91,640	+30,380
July 31 . . . . .	7,762.64	99,060	+7,420
Aug. 31 . . . . .	7,758.70	95,260	-3,800
Sept. 30 . . . . .	7,750.68	87,830	-7,430
WTR YR 1996. . . . .			-11,780

## ROARING FORK RIVER BASIN

## 09080400 FRYINGPAN RIVER NEAR RUEDI, CO

LOCATION.--Lat 39°21'56", long 106°49'30", in SE<sup>1/4</sup>SE<sup>1/4</sup> sec.12, T.8 S., R.85 W., Eagle County, Hydrologic Unit 14010004, on right bank 0.4 mi downstream from Rocky Fork Creek and Ruedi Dam, 1.5 mi west of former site of Ruedi, and 12.5 mi east of Basalt.

DRAINAGE AREA.--238 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1964 to current year. Statistical summary computed for 1969 to current year.

GAGE.--Water-stage recorder with satellite telemetry and concrete control. Datum of gage is 7,473.25 ft above sea level, (levels by U.S. Bureau of Reclamation). Prior to Nov. 7, 1970, at site 2.0 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Diversions for irrigation of hay meadows upstream from station.

Transmountain diversions upstream from station to Arkansas River basin through Busk-Ivanhoe Tunnel since June 1925 and Charles H. Boustead Tunnel since May 16, 1972 (see elsewhere in this report). Flow regulated by Ruedi Reservoir (station 09080190) since May 18, 1968. Several observations of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	184	198	225	222	235	256	306	241	392	324	106	237
2	191	201	225	222	234	256	307	241	396	267	105	237
3	212	198	225	221	234	256	307	240	401	266	106	237
4	209	198	225	221	234	257	306	241	406	265	106	237
5	209	198	226	221	234	258	311	243	415	266	105	237
6	209	197	226	221	234	259	310	263	384	266	105	237
7	209	199	226	221	245	259	310	339	364	265	105	237
8	209	200	225	221	256	258	310	389	365	247	104	238
9	209	201	225	221	255	258	309	478	365	216	104	238
10	209	184	225	221	255	257	310	467	310	203	104	238
11	207	121	225	221	255	257	311	464	292	170	104	237
12	206	121	225	221	255	257	311	441	292	168	104	238
13	206	76	225	221	254	266	310	421	290	140	104	237
14	206	28	225	221	254	288	310	423	290	115	111	237
15	206	71	224	220	255	288	309	501	300	115	176	239
16	206	119	224	220	255	288	309	709	298	115	191	238
17	206	149	224	220	255	287	308	819	347	114	239	239
18	206	201	224	220	256	287	308	817	450	104	239	232
19	206	200	224	239	255	287	308	824	440	105	238	232
20	206	200	224	239	255	290	310	827	416	103	237	237
21	206	200	223	238	254	294	310	819	368	102	238	238
22	204	211	221	237	255	296	309	798	367	102	239	238
23	203	227	221	237	254	296	308	705	364	101	239	238
24	201	226	221	237	253	295	308	629	360	101	239	237
25	198	226	221	237	253	294	258	631	357	101	238	238
26	199	225	221	237	254	300	238	631	356	100	238	239
27	198	225	221	236	257	307	240	626	355	103	237	238
28	198	225	222	236	257	307	241	517	354	106	238	237
29	198	224	222	236	256	307	241	335	353	108	237	237
30	198	224	222	235	---	307	241	263	353	108	237	234
31	198	---	223	235	---	307	---	318	---	107	237	---
TOTAL	6312	5473	6935	7055	7258	8679	8874	15660	10800	4973	5410	7113
MEAN	204	182	224	228	250	280	296	505	360	160	175	237
MAX	212	227	226	239	257	307	311	827	450	324	239	239
MIN	184	28	221	220	234	256	238	240	290	100	104	232
AC-FT	12520	10860	13760	13990	14400	17210	17600	31060	21420	9860	10730	14110

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1996, BY WATER YEAR (WY)

MEAN	144	128	139	135	138	146	164	279	374	276	158	140
MAX	366	185	224	228	250	280	370	669	950	812	242	240
(WY)	1970	1985	1996	1996	1996	1996	1971	1970	1984	1995	1995	1994
MIN	54.8	44.0	38.2	36.8	36.3	33.6	39.1	116	115	95.9	57.1	49.1
(WY)	1978	1969	1969	1969	1969	1977	1969	1990	1992	1977	1977	1977

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1969 - 1996

ANNUAL TOTAL	90594	94542										
ANNUAL MEAN	248	258	a	185								
HIGHEST ANNUAL MEAN			288									1984
LOWEST ANNUAL MEAN			83.9									1977
HIGHEST DAILY MEAN	1040	Jul 14	827	May 20								
LOWEST DAILY MEAN	28	Nov 14	28	Nov 14	b	28						1995
ANNUAL SEVEN-DAY MINIMUM	70	Mar 8	98	Nov 11	c	29						1981
INSTANTANEOUS PEAK FLOW			846	May 17	d	1400						1976
INSTANTANEOUS PEAK STAGE			3.22	May 17	e	3.50						1976
ANNUAL RUNOFF (AC-FT)	179700	187500										
10 PERCENT EXCEEDS	655	361										
50 PERCENT EXCEEDS	198	237										
90 PERCENT EXCEEDS	73	120										

a-Subsequent to completion of Ruedi Reservoir.

b-Minimum daily discharge for period of record, 16 ft<sup>3</sup>/s, Feb 2, 1968 (result of storage in Ruedi Reservoir); minimum daily discharge prior to construction of Ruedi Reservoir, 28 ft<sup>3</sup>/s, Mar 4, 1966.

c-Maximum discharge and stage for period of record, 2690 ft<sup>3</sup>/s, Jun 18, 1965, gage height 5.16 ft, site and datum then in use.

d-Maximum gage height for statistical period, 3.89 ft, Jun 24, 1983.

**09081600 CRYSTAL RIVER ABOVE AVALANCHE CREEK, NEAR REDSTONE, CO**

LOCATION.--Lat 39°13'56", long 107°13'36", in SE<sup>1/4</sup>SW<sup>1/4</sup> sec.33, T.9 S., R.88 W., Pitkin County, Hydrologic Unit 14010004, on right bank 1.2 mi upstream from Avalanche Creek and 3.6 mi north of Redstone.

DRAINAGE AREA.--167 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,905 ft above sea level, from river-profile map.

REMARKS.--Records good except for estimated daily discharges, which are poor. A few small diversions for irrigation upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	162	122	79	58	48	44	111	e210	654	794	199	96
2	151	106	79	53	56	42	141	e240	786	778	201	93
3	147	91	76	58	47	42	151	e290	995	711	211	90
4	151	92	75	59	48	43	129	368	1180	714	216	88
5	145	90	75	58	66	44	116	498	1260	715	187	90
6	135	94	75	52	59	44	124	622	1420	669	172	126
7	137	92	75	57	56	41	155	678	1420	638	e164	134
8	133	90	74	57	56	42	e200	757	1420	591	e156	107
9	129	91	71	56	57	43	e230	851	1320	546	e152	97
10	127	95	70	55	58	47	e250	810	1300	518	e150	91
11	124	87	70	53	56	50	e230	891	1330	509	e148	93
12	127	92	69	53	54	55	e220	1080	1300	468	e140	100
13	139	90	69	54	54	52	e210	1280	1280	429	e130	133
14	127	88	69	53	57	51	e190	1340	1290	412	e127	127
15	123	85	57	53	58	52	e160	1320	1320	394	e125	124
16	120	81	66	55	58	56	e150	1500	1240	398	126	110
17	117	86	63	58	59	56	e150	1580	1230	478	123	119
18	116	84	51	49	61	53	e160	1450	1270	453	126	121
19	113	84	49	53	58	50	e150	1490	1230	395	125	122
20	109	83	48	55	77	51	e140	1360	1260	353	117	115
21	109	82	54	50	123	58	e130	1140	1370	325	118	108
22	115	84	48	58	119	72	e130	1140	1550	296	120	107
23	107	82	43	55	67	77	e150	1110	1280	279	114	125
24	108	78	41	55	58	68	e180	995	1110	262	109	121
25	108	81	47	55	55	61	e200	836	1050	251	108	116
26	107	81	50	51	54	59	e230	739	1030	234	107	110
27	104	80	50	45	49	60	e230	629	1080	233	111	102
28	100	73	51	60	46	66	e220	566	938	220	115	98
29	100	83	56	58	45	74	e210	509	785	246	111	90
30	98	78	55	57	--	80	e200	532	805	224	104	88
31	97	---	59	57	--	90	--	546	--	209	99	---
TOTAL	3785	2625	1914	1700	1759	1723	5247	27357	35503	13742	4311	3241
MEAN	122	87.5	61.7	54.8	60.7	55.6	175	882	1183	443	139	108
MAX	162	122	79	60	123	90	250	1580	1550	794	216	134
MIN	97	73	41	45	45	41	111	210	654	209	99	88
AC-FT	7510	5210	3800	3370	3490	3420	10410	54260	70420	27260	8550	6430

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 1996, BY WATER YEAR (WY)

MEAN	97.4	71.6	55.9	49.3	48.9	64.8	193	759	1293	643	201	124
MAX	220	152	95.9	85.3	89.9	184	464	1223	2019	1872	640	253
(WY)	1987	1987	1986	1985	1986	1986	1962	1984	1957	1957	1995	1986
MIN	49.7	39.5	36.3	34.1	28.3	32.4	83.4	288	375	96.9	74.6	59.8

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1956 - 1996
ANNUAL TOTAL	167405	102906	
ANNUAL MEAN	459	281	301
HIGHEST ANNUAL MEAN			468
LOWEST ANNUAL MEAN			107
HIGHEST DAILY MEAN	2980	Jun 16	3500
LOWEST DAILY MEAN	34	Jan 1	b22
ANNUAL SEVEN-DAY MINIMUM	42	Jan 18	Dec 5 1955
INSTANTANEOUS PEAK FLOW			27
INSTANTANEOUS PEAK STAGE			Feb 11 1964
ANNUAL RUNOFF (AC-FT)	332000	204100	4180
10 PERCENT EXCEEDS	1550	1010	6.12
50 PERCENT EXCEEDS	136	110	Jun 25 1983
90 PERCENT EXCEEDS	54	52	Jun 25 1983
			217800
			956
			94
			43

e-Estimated.

a-Also occurred Mar 7.

b-Also occurred Feb 15, 1964, Jan 2 and Feb 17-18, 1978.

## ROARING FORK RIVER BASIN

**09085000 ROARING FORK RIVER AT GLENWOOD SPRINGS, CO**

LOCATION.--Lat 39°32'37", long 107°19'44", in SW<sup>1/4</sup>SE<sup>1/4</sup> sec.9, T.6 S., R.89 W., Garfield County, Hydrologic Unit 14010004, on left bank at Glenwood Springs, 2,100 ft upstream from mouth.

DRAINAGE AREA.--1,451 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--October 1905 to September 1909, September 1910 to current year. Monthly discharge only for some periods, published in WSP 1313. Prior to October 1960, published as Roaring Fork at Glenwood Springs. Statistical summary computed for 1972 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 5,720.73 ft above sea level. Prior to Nov. 20, 1915, nonrecording gage on highway bridge 800 ft downstream, at different datum. Nov. 20, 1915 to Oct. 26, 1917, nonrecording gage at present site and datum.

REMARKS.--No estimated daily discharges. Records good. Diversions upstream from station for irrigation of about 35,000 acres. Transmountain diversions to Arkansas River basin through Busk-Ivanhoe tunnel since 1925, Twin Lakes tunnel since 1935, and Charles H. Bousted tunnel since 1972. Natural flow of stream affected by storage in Ruedi Reservoir on Fryingpan River (station 09080190) since May 1968.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUE**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1110	1010	841	706	629	612	854	1340	2480	3500	953	735
2	1040	1020	837	688	641	605	994	1350	2770	3310	920	727
3	1040	944	825	702	628	596	1080	1390	3290	3080	912	724
4	1070	900	792	692	611	609	998	1510	4010	3010	962	714
5	1100	900	808	715	665	620	930	1790	4540	3070	919	734
6	1060	909	812	695	664	603	939	2170	5010	2920	863	832
7	1040	917	798	691	646	568	992	2350	5140	2790	837	916
8	1040	909	798	694	652	576	1080	2550	5170	2620	819	825
9	1020	900	791	691	662	576	1320	2940	5030	2330	801	789
10	998	911	780	693	668	594	1480	2860	4870	2150	788	769
11	1000	835	771	684	668	601	1560	2890	4770	2010	756	757
12	1020	814	770	672	662	642	1390	3370	4990	1870	727	791
13	1060	825	779	669	660	640	1330	3990	5040	1760	698	950
14	1050	774	791	663	666	658	1220	4410	5230	1660	675	945
15	1040	750	736	662	667	660	1130	4490	5730	1610	686	934
16	1040	765	766	665	668	674	1150	5120	5450	1650	697	899
17	1040	772	731	687	670	679	1200	5900	5200	1810	697	861
18	1040	805	708	666	694	675	1240	5560	5440	1820	722	862
19	1030	829	697	658	706	662	1230	5690	5300	1740	742	893
20	1020	829	694	683	706	679	1120	5780	5090	1550	733	876
21	995	829	700	662	876	701	1090	4840	5590	1440	723	848
22	1000	829	689	679	1000	741	1040	4720	6370	1350	714	831
23	1010	829	680	673	807	788	1010	4700	5720	1240	723	856
24	989	829	678	660	684	755	1100	4340	4820	1150	716	858
25	973	829	704	662	667	720	1440	3890	4490	1100	699	841
26	973	829	691	660	653	691	1550	3790	4200	1050	710	837
27	973	840	691	641	637	711	1640	3260	4430	1000	737	822
28	973	793	701	697	615	718	1600	2970	4290	963	750	802
29	973	822	697	664	599	753	1380	2550	3690	1050	756	791
30	961	841	701	662	---	774	1290	2210	3610	1060	755	784
31	963	---	719	661	---	797	---	2230	---	990	745	---
TOTAL	31641	25588	23176	20997	19771	20678	36377	106950	141760	58653	23935	24803
MEAN	1021	853	748	677	682	667	1213	3450	4725	1892	772	827
MAX	1110	1020	841	715	1000	797	1640	5900	6370	3500	962	950
MIN	961	750	678	641	599	568	854	1340	2480	963	675	714
AC-FT	62760	50750	45970	41650	39220	41010	72150	212100	281200	116300	47480	49200

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1996, BY WATER YEAR (WY)

MEAN	722	671	576	510	482	534	819	2202	4129	2503	984	725
MAX	1159	969	790	677	689	861	1602	4663	7383	7483	2676	1160
(WY)	1985	1985	1985	1996	1986	1986	1985	1984	1984	1995	1995	1995
MIN	384	411	382	371	315	298	352	593	1139	422	316	363
(WY)	1978	1978	1978	1978	1977	1977	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1972 - 1996

ANNUAL TOTAL	745994	534329	a1240
ANNUAL MEAN	2044	1460	2092
HIGHEST ANNUAL MEAN			b485
LOWEST ANNUAL MEAN			c,d11800
HIGHEST DAILY MEAN	11800	Jul 12	1977
LOWEST DAILY MEAN	349	Feb 16	c,248
ANNUAL SEVEN-DAY MINIMUM	381	Jan 18	f,258
INSTANTANEOUS PEAK FLOW		Jun 22	f,13000
INSTANTANEOUS PEAK STAGE		6.25	g,8.31
ANNUAL RUNOFF (AC-FT)	1480000	1060000	898200
10 PERCENT EXCEEDS	6530	4000	3010
50 PERCENT EXCEEDS	926	844	670
90 PERCENT EXCEEDS	418	662	430

a-Average discharge for 65 years (water years 1906-09, 1911-71), 1368 ft<sup>3</sup>/s; 991100 acre-ft/yr, prior to diversion through Charles H. Bousted tunnel.

b-Maximum daily discharge for period of record, 16600 ft<sup>3</sup>/s, Jun 30, 1957.

c-Minimum daily discharge for period of record, 179 ft<sup>3</sup>/s, Jan 21, 1935; minimum discharge, 145 ft<sup>3</sup>/s, Jan 21, 1935, gage height, 0.65 ft.

d-Also occurred Aug 12, 1977.

e-Maximum discharge and stage for period of record, 19000 ft<sup>3</sup>/s, Jul 1, 1957, gage height, 8.65 ft.

g-Maximum gage height for period of record, 8.7 ft, Jun 14, 1921, from floodmarks.

## ROARING FORK RIVER BASIN

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**09085000 ROARING FORK RIVER AT GLENWOOD SPRINGS, CO--Continued**

## **WATER-QUALITY RECORDS**

PERIOD OF RECORD.--October 1993 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

		DIS- CHARGE, INST.	SPE- CIFIC CUBIC FEET	PH DUCT- ANCE PER SECOND	TEMPER- (STAND- ARD UNITS)	OXYGEN, WATER (DEG C)	COLI- FORM, FECAL,	E. COLI WATER TOTAL UREASE	Cadmium
DATE	TIME						0.7 UM-MF (COL / 100 ML)		DIS- SOLVED (UG/L AS CD)
OCT 19...	1405	1040	540	8.2	9.0	9.6	--	--	<1
MAR 21...	1140	695	508	8.4	7.5	12.0	--	>160	<1
JUN 13...	1015	5190	205	8.2	9.0	9.9	72	51	<1
AUG 20...	1200	727	544	8.3	15.0	9.9	23	K20	<1

		IRON, COPPER, DIS- SOLVED DATE	TOTAL (UG/L AS CU)	LEAD, DIS- ERABLE (UG/L AS FE)	TOTAL (UG/L AS PB)	MANGA- NESE, RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, RECOV- ERABLE (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 19...	<1	70	<1	20	<10	<0.1	<1	<0.2	<10		
MAR 21...	<1	130	<1	20	10	<0.1	<1	<0.2	<10		
JUN 13...	<1	750	<1	40	4	<0.1	<1	<0.2	4		
AUG 20...	<1	80	<1	10	5	<0.1	<1	<0.2	<3		

K-Based on non-ideal colony count.

## MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

		DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT-	TEMPER- ATURE WATER (DEG C)		DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT-	TEMPER- ATURE WATER (DEG C)	
DATE	TIME	PER SECOND	(US/CM)		DATE	TIME	PER SECOND	(US/CM)	
OCT 06...	1245	1090	514	7.5	MAY 20...	1344	5710	205	9.0
NOV 27...	1445	858	522	4.0	JUN 28...	0801	4440	237	10.0
JAN 04...	1140	692	510	1.5	AUG 09...	0651	800	538	14.0
MAR 05...	1330	580	520	4.0					
18...	1108	713	511	3.5					

## COLORADO RIVER MAIN STEM

**09085100 COLORADO RIVER BELOW GLENWOOD SPRINGS, CO**

LOCATION.--Lat 39°33'18", long 107°20'13", in NW<sup>1/4</sup>NW<sup>1/4</sup> sec.9, T.6 S., R.89 W., Garfield County, Hydrologic Unit 14010005, on left bank 0.6 mi downstream from Roaring Fork River and 1.0 mi northwest of Post Office in Glenwood Springs.

DRAINAGE AREA.--6,013 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 5,700.75 ft above sea level, Colorado State Highway Department benchmark.

REMARKS.--No estimated daily discharges. Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, and diversions for irrigation of 110,000 acres. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2610	2520	2200	1970	1840	1860	3590	5450	7890	9990	2850	2260
2	2480	2540	2210	1840	1740	1940	3860	5610	8140	9180	2780	2230
3	2420	2390	2170	1750	1620	1920	4330	5640	8770	8650	2730	2200
4	2450	2300	2150	1960	1520	1950	4410	5600	9840	8100	2820	2180
5	2490	2290	2170	1990	1790	2000	4360	6340	10700	7810	2720	2140
6	2510	2320	2220	1880	1970	2010	4410	7170	11700	7590	2630	2180
7	2500	2340	2190	1790	1900	1900	4520	8290	12000	7530	2580	2300
8	2490	2340	2160	1820	1910	1890	4790	8980	12100	7450	2520	2210
9	2460	2320	2100	1830	1900	1900	5420	9750	12100	6720	2460	2140
10	2430	2430	2090	1890	1910	1960	6130	9810	12000	6070	2430	2100
11	2420	2260	2090	1860	1830	1990	6470	9860	11900	5610	2460	2040
12	2420	2220	2090	1820	1790	2110	6110	11000	12000	5140	2420	2080
13	2510	2260	2060	1790	1760	2210	5720	12500	12000	4820	2350	2280
14	2550	2270	2120	1760	1810	2250	5350	13800	12200	4590	2260	2360
15	2500	2290	1970	1740	1850	2290	4920	14400	12900	4500	2320	2360
16	2440	2310	1840	1840	1850	2520	4850	15500	13200	4370	2450	2400
17	2410	2270	1810	1970	1860	2600	5000	17200	12900	4340	2430	2340
18	2410	2290	1720	1820	1950	2560	5160	17500	13400	4480	2430	2300
19	2340	2300	1660	1740	1970	2490	5150	18000	13700	4430	2400	2370
20	2190	2280	1650	1830	1970	2560	4810	18200	13700	4250	2380	2280
21	2090	2250	1670	1790	2240	2630	4670	15600	15500	4100	2330	2250
22	2180	2250	1670	1850	2410	2810	4550	13200	16800	3950	2290	2250
23	2200	2260	1570	1860	2220	3170	4470	12200	16400	3690	2350	2260
24	2070	2240	1520	1810	1990	3120	4660	11000	15300	3450	2410	2300
25	2050	2210	1510	1850	1990	2990	5640	10200	13800	3300	2490	2390
26	2070	2220	1580	1800	1980	2880	6230	10600	12800	3210	2460	2410
27	1960	2250	1570	1720	1930	2950	6270	9940	12600	3040	2430	2390
28	2160	2150	1580	1770	1850	3020	6270	9240	12400	2930	2340	2350
29	2380	2180	1650	1860	1820	3220	5810	8610	11300	3040	2360	2310
30	2310	2220	1770	1910	--	3360	5470	8160	10800	3100	2340	2330
31	2370	--	1990	1910	--	3440	--	7810	--	2940	2290	--
TOTAL	72870	68770	58750	57020	55170	76500	153400	337160	370840	162370	76510	67990
MEAN	2351	2292	1895	1839	1902	2468	5113	10880	12360	5238	2468	2266
MAX	2610	2540	2220	1990	2410	3440	6470	18200	16800	9990	2850	2410
MIN	1960	2150	1510	1720	1520	1860	3590	5450	7890	2930	2260	2040
AC-FT	144500	136400	116500	113100	109400	151700	304300	668800	735600	322100	151800	134900

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1996, BY WATER YEAR (WY)

MEAN	2088	1901	1603	1498	1489	1708	2744	6993	10430	5825	2858	2253
MAX	3082	2703	2487	2192	2209	2814	5113	15570	20710	15180	5975	3716
(WY)	1985	1985	1985	1985	1986	1986	1986	1984	1984	1995	1984	1984
MIN	1394	1186	1162	1142	1023	1018	1571	2146	2781	1755	1674	1647
(WY)	1978	1978	1967	1995	1981	1977	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1967 - 1996
ANNUAL TOTAL	1687920	1557350	
ANNUAL MEAN	4624	4255	3454
HIGHEST ANNUAL MEAN			6276
LOWEST ANNUAL MEAN			1638
HIGHEST DAILY MEAN	22800	Jun 18	1984
LOWEST DAILY MEAN	a1000	Jan 23	1984
ANNUAL SEVEN-DAY MINIMUM	1030	Mar 3	Mar 10
INSTANTANEOUS PEAK FLOW		18200	May 25 1984
INSTANTANEOUS PEAK STAGE		9.65	May 25 1984
ANNUAL RUNOFF (AC-FT)	3348000	3089000	2502000
10 PERCENT EXCEEDS	14800	11000	8080
50 PERCENT EXCEEDS	2280	2390	2090
90 PERCENT EXCEEDS	1100	1830	1320

a-Also occurred Jan 30, Mar 5-7.

## ELK CREEK BASIN

201

## 09086000 WEST ELK CREEK NEAR NEW CASTLE, CO

LOCATION.--Lat 39°39'59", long 107°37'35", Garfield County, Hydrologic Unit 14010005, on left bank 1.9 mi downstream from West Elk Reservoir and just inside White River National Forest boundary.

DRAINAGE AREA.--9.55 mi<sup>2</sup>.

PERIOD OF RECORD.--1911, October 1990 to current year. Published as West Fork Elk Creek near New Castle, 1911.

REVISED RECORDS.--WDR CO-92-2: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,760 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	e.80	e.51	e.45	e.52	e.82	1.5	2.5	e2.8	1.5	1.5	1.3
2	1.7	e.78	e.50	e.43	e.52	.82	1.5	2.6	e3.0	1.5	1.4	1.3
3	1.6	e.74	e.49	e.44	e.52	.84	1.5	2.7	e3.3	1.5	1.4	1.3
4	1.7	e.72	e.49	e.45	e.52	.87	1.4	2.9	e3.5	1.5	1.5	1.3
5	1.6	e.68	e.49	e.45	e.53	.88	1.4	3.4	e3.8	1.4	1.5	1.3
6	1.5	e.64	e.50	e.44	e.53	.84	1.4	4.3	e4.2	1.3	1.4	1.5
7	e1.4	e.64	e.49	e.43	e.53	.82	1.5	4.6	e4.1	1.3	1.4	1.5
8	e1.4	e.62	e.49	e.43	e.53	.85	1.6	4.5	e3.9	1.3	1.4	1.4
9	e1.3	e.60	e.48	e.44	e.53	.91	1.7	4.8	e3.7	1.3	1.4	1.3
10	e1.3	e.60	e.48	e.45	e.53	.95	1.9	4.5	e3.5	1.2	1.4	1.3
11	e1.3	e.58	e.47	e.44	e.54	1.1	2.3	4.2	e3.3	1.6	1.4	1.3
12	e1.3	e.56	e.47	e.44	e.55	1.1	2.1	4.5	e3.4	1.7	1.4	1.4
13	e1.2	e.56	e.45	e.45	e.57	1.1	2.1	4.3	e3.5	1.7	1.4	1.4
14	e1.2	e.54	e.43	e.45	e.60	1.1	2.0	4.1	e3.2	1.6	1.4	1.5
15	e1.2	e.54	e.44	e.46	e.63	1.2	1.9	3.8	e3.0	1.7	1.4	1.4
16	e1.2	e.54	e.50	e.49	e.65	1.2	1.9	3.6	e2.9	1.7	1.3	1.4
17	e1.2	e.52	e.43	e.51	e.68	1.1	1.9	3.5	e2.7	1.8	1.3	1.5
18	e1.2	e.50	e.38	e.50	e.72	1.1	1.8	e3.2	e2.5	1.7	1.5	1.5
19	e1.2	e.50	e.39	e.50	e.76	1.1	1.7	e3.1	e2.3	1.6	1.5	1.5
20	e1.2	e.49	e.41	e.51	e.80	1.1	1.8	e3.0	e2.2	1.6	1.4	1.5
21	e1.1	e.49	e.42	e.51	e.90	1.2	1.8	e2.9	e2.2	1.5	1.4	1.4
22	e1.1	e.49	e.40	e.51	e1.0	1.4	1.7	e2.8	e2.2	1.5	1.4	1.3
23	e1.0	e.50	e.43	e.51	e.94	1.4	1.7	e2.8	e2.1	1.5	1.4	1.4
24	e1.0	e.48	e.44	e.50	e.90	1.2	2.0	e2.7	e2.0	1.5	1.4	1.5
25	e.98	e.48	e.43	e.50	e.86	1.2	2.3	e2.6	e1.9	1.5	1.3	1.4
26	e.94	e.49	e.42	e.51	e.82	1.3	2.6	e2.6	e1.9	1.5	1.3	1.4
27	e.92	e.48	e.42	e.51	e.80	1.3	2.6	e2.5	e1.8	1.5	1.3	1.4
28	e.90	e.45	e.42	e.51	e.80	1.4	2.6	e2.4	1.9	1.5	1.4	1.4
29	e.88	e.49	e.44	e.51	e.80	1.4	2.3	e2.4	1.8	1.6	1.3	1.4
30	e.86	e.52	e.46	e.51	---	1.4	2.3	e2.5	1.7	1.6	1.3	1.4
31	e.82	---	e.46	e.52	---	1.4	---	e2.7	---	1.5	1.4	---
TOTAL	38.10	17.02	14.03	14.76	19.58	34.40	56.8	103.0	84.3	47.2	43.2	41.9
MEAN	1.23	.57	.45	.48	.68	1.11	1.89	3.32	2.81	1.52	1.39	1.40
MAX	1.9	.80	.51	.52	1.0	1.4	2.6	4.8	4.2	1.8	1.5	1.5
MIN	.82	.45	.38	.43	.52	.82	1.4	2.4	1.7	1.2	1.3	1.3
AC-FT	76	34	28	29	39	68	113	204	167	94	86	83

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1996, BY WATER YEAR (WY)

MEAN	.75	.52	.39	.35	.39	.55	1.00	2.40	2.37	1.55	1.26	1.12
MAX	1.72	1.37	1.03	.85	.81	1.11	1.89	5.76	5.38	3.53	2.74	2.24
(WY)	1994	1994	1994	1994	1994	1996	1996	1993	1993	1993	1995	1995
MIN	.32	.22	.20	.16	.17	.18	.54	.66	.47	.20	.32	.055
(WY)	1992	1992	1991	1995	1991	1991	1995	1992	1991	1991	1994	1994

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1991 - 1996
ANNUAL TOTAL	545.39	514.29	
ANNUAL MEAN	1.49	1.41	1.06
HIGHEST ANNUAL MEAN			1.81
LOWEST ANNUAL MEAN			.38
HIGHEST DAILY MEAN	6.4	Jun 5	9.6 May 22 1993
LOWEST DAILY MEAN	a.13	Jan 15	b.00 Jul 10 1994
ANNUAL SEVEN-DAY MINIMUM	.13	Jan 13	.00 Jul 10 1994
INSTANTANEOUS PEAK FLOW			
INSTANTANEOUS PEAK STAGE			
ANNUAL RUNOFF (AC-FT)	1080	1020	765
10 PERCENT EXCEEDS	3.4	2.7	2.7
50 PERCENT EXCEEDS	.72	1.3	.58
90 PERCENT EXCEEDS	.17	.48	.19

e-Estimated.

a-Also occurred Jan 16-19.

b-No flow many days, Jul to Sep, 1994.

## ELK CREEK BASIN

**09086470 MAIN ELK CREEK NEAR NEW CASTLE, CO**

LOCATION.--Lat 39°40'41", long 107°34'21", Garfield County, Hydrologic Unit 14010005, on right bank about 500 ft upstream from bridge and 9.5 miles northeast of New Castle.

DRAINAGE AREA.--91.0 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1990 to current year.

GAGE.--Water-stage recorder with satellite telemetry, and crest-stage gage. Elevation of gage is 6,120 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e20	19	14	10	9.7	10	14	82	282	76	29	18
2	e21	16	14	e10	e10	10	16	87	322	71	28	18
3	21	16	13	11	e11	10	17	105	360	66	28	17
4	22	17	13	10	e10	10	17	135	388	63	27	17
5	21	17	13	10	10	10	18	182	399	61	26	18
6	21	17	14	e10	9.8	9.8	19	245	422	59	25	20
7	20	17	14	10	9.6	9.8	22	276	392	56	25	19
8	20	16	13	10	9.5	9.8	27	292	366	54	24	17
9	20	16	13	10	9.5	9.8	45	351	326	53	24	17
10	20	16	13	10	9.3	10	66	349	288	50	23	16
11	20	15	13	10	9.2	10	67	367	261	47	23	16
12	20	16	13	9.8	9.1	11	58	456	260	46	23	16
13	20	15	13	9.7	9.2	11	53	552	262	45	23	16
14	19	15	13	9.7	9.3	11	45	647	246	44	23	16
15	19	15	11	9.7	9.4	11	40	683	229	43	22	15
16	19	15	13	9.8	9.7	11	39	768	210	44	22	15
17	19	15	12	10	9.9	12	38	847	200	45	22	16
18	19	15	9.9	e10	10	11	37	815	194	44	23	16
19	19	15	10	11	10	11	36	726	179	42	22	16
20	18	14	11	9.9	11	11	34	608	164	40	21	15
21	18	14	11	10	12	12	33	498	162	38	21	15
22	18	14	10	10	13	12	31	474	162	36	21	14
23	18	14	e10	9.8	12	13	30	481	145	35	21	14
24	17	14	e11	9.7	11	13	33	418	128	33	20	15
25	17	14	11	9.7	11	12	50	374	115	33	20	15
26	17	14	11	11	11	12	70	342	105	32	19	14
27	17	14	11	e10	10	12	86	298	101	31	20	14
28	17	12	11	9.5	11	12	94	278	96	30	19	14
29	17	15	10	9.6	10	12	86	253	89	31	19	14
30	17	14	11	9.6	---	13	81	248	81	31	19	14
31	17	---	11	10	---	13	---	260	---	29	18	---
TOTAL	588	456	370.9	309.5	296.2	345.2	1302	12497	6934	1408	700	477
MEAN	19.0	15.2	12.0	9.98	10.2	11.1	43.4	403	231	45.4	22.6	15.9
MAX	22	19	14	11	13	13	94	847	422	76	29	20
MIN	17	12	9.9	9.5	9.1	9.8	14	82	81	29	18	14
AC-FT	1170	904	736	614	588	685	2580	24790	13750	2790	1390	946

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1996, BY WATER YEAR (WY)

MEAN	14.1	12.0	10.2	9.02	9.06	10.1	29.8	340	335	80.7	25.5	17.1
(WY)	19.0	15.2	12.0	9.98	10.4	13.5	55.1	570	688	209	44.1	20.0
1996	1996	1996	1996	1993	1993	1992	1993	1993	1995	1995	1995	1993
MIN	11.2	10.0	8.52	7.05	6.76	6.61	14.4	168	97.6	26.2	16.4	15.1
(WY)	1993	1993	1991	1991	1991	1991	1991	1995	1992	1994	1994	1994

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1991 - 1996

ANNUAL TOTAL	37037.2		25683.8									
ANNUAL MEAN	101		70.2									
HIGHEST ANNUAL MEAN										74.6		
LOWEST ANNUAL MEAN										121		
HIGHEST DAILY MEAN	1130	Jun 16		847	May 17					41.9		
LOWEST DAILY MEAN	e 6.2	Jan 23		9.1	Feb 12					5.8		
ANNUAL SEVEN-DAY MINIMUM	7.4	Jan 18		9.3	Feb 9					6.2		
INSTANTANEOUS PEAK FLOW				884	May 17					1230		
INSTANTANEOUS PEAK STAGE				6.73	May 17					a 7.26		
ANNUAL RUNOFF (AC-FT)	73460		50940							54050		
10 PERCENT EXCEEDS	342		255							257		
50 PERCENT EXCEEDS	18		17							15		
90 PERCENT EXCEEDS	8.4		10							8.8		

e-Estimated.

a-Maximum gage height, 7.28 ft, Jun 16, 1995.

**09086970 EAST ELK CREEK ABOVE BOILER CREEK, NEAR NEW CASTLE, CO**

**LOCATION.**--Lat 39°40'05", long 107°31'28", Garfield County, Hydrologic Unit 14010005, on left bank 45 ft downstream from Forest Service footbridge and 6 mi northeast of New Castle.

**DRAINAGE AREA.**--23.4 mi<sup>2</sup>.

**PERIOD OF RECORD.**--October 1990 to current year.

**GAGE.**--Water-stage recorder with satellite telemetry. Elevation of gage is 6,800 ft above sea level, from topographic map.

**REMARKS.**--Records fair except for estimated daily discharges, which are poor. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	7.5	e6.2	4.8	4.7	5.0	13	28	146	46	16	7.8
2	10	5.1	6.2	4.4	4.9	4.9	15	29	169	41	16	7.8
3	10	4.4	5.9	4.4	4.5	4.9	15	33	210	39	16	7.6
4	9.7	6.4	6.0	4.7	e4.6	4.8	15	39	242	35	16	7.5
5	9.7	6.0	6.1	4.6	4.8	4.9	15	55	276	33	15	8.8
6	8.9	6.6	6.1	4.4	4.8	4.8	17	83	298	30	14	12
7	9.2	6.5	6.0	4.4	4.8	4.5	19	103	260	28	15	9.8
8	8.6	6.2	5.7	4.4	4.8	4.6	22	117	227	27	14	8.5
9	8.6	6.1	5.6	4.4	4.8	4.7	27	142	214	26	14	8.2
10	8.6	5.8	5.6	4.4	4.8	5.0	31	129	193	24	14	8.0
11	8.6	5.1	5.4	4.4	4.8	5.8	30	142	189	23	13	8.1
12	8.6	6.1	5.5	4.4	4.8	6.6	28	190	192	22	13	7.9
13	8.6	6.3	5.6	4.4	4.8	6.5	26	240	203	20	13	9.4
14	8.3	6.5	5.1	4.4	4.9	6.5	25	292	186	20	13	9.3
15	8.0	6.5	4.5	4.4	5.0	7.0	24	321	168	20	13	8.3
16	8.3	6.5	5.3	4.7	5.1	7.2	23	367	158	20	12	8.0
17	8.6	6.5	4.5	5.2	5.2	7.5	23	446	152	21	12	9.8
18	8.6	6.3	4.1	4.6	5.5	7.0	22	398	148	23	13	9.8
19	8.5	6.1	4.2	4.9	5.5	7.0	21	293	136	20	12	9.0
20	7.8	6.1	4.5	4.9	5.7	7.2	19	222	125	18	10	9.0
21	7.8	6.3	4.6	5.0	6.3	7.9	18	193	123	17	10	9.1
22	7.5	6.8	4.4	4.9	7.0	9.9	17	194	122	16	10	9.0
23	6.5	6.5	4.4	4.8	6.1	11	17	206	111	18	9.5	9.1
24	6.9	6.3	4.5	4.8	6.0	10	21	179	98	18	9.3	10
25	7.2	6.2	4.5	4.8	5.7	9.7	27	157	87	18	9.6	8.8
26	7.6	6.3	4.5	4.8	5.6	9.5	30	147	79	17	10	8.0
27	7.4	6.2	4.4	4.7	5.4	9.3	31	129	74	17	10	8.0
28	6.8	5.5	4.5	4.8	5.1	9.4	31	120	66	17	9.6	8.0
29	6.5	e5.8	4.5	4.8	5.2	10	29	114	57	18	8.7	7.7
30	6.5	e6.1	4.6	4.8	---	11	28	118	51	17	8.3	7.4
31	6.7	---	4.8	4.8	---	11	---	127	---	16	8.0	---
TOTAL	255.6	184.6	157.8	144.2	151.2	225.1	679	5353	4760	725	377.0	259.7
MEAN	8.25	6.15	5.09	4.65	5.21	7.26	22.6	173	159	23.4	12.2	8.66
MAX	11	7.5	6.2	5.2	7.0	11	31	446	298	46	16	12
MIN	6.5	4.4	4.1	4.4	4.5	4.5	13	28	51	16	8.0	7.4
AC-FT	507	366	313	286	300	446	1350	10620	9440	1440	748	515

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1996, BY WATER YEAR (WY)**

MEAN	7.67	6.06	5.04	4.64	4.62	6.06	14.9	125	202	64.1	15.3	10.2
MAX	9.46	7.72	5.49	5.10	5.21	7.26	22.6	173	354	207	22.8	13.7
(WY)	1994	1994	1992	1992	1996	1996	1996	1996	1993	1995	1995	1991
MIN	5.89	5.26	4.59	4.42	4.11	4.58	9.62	42.6	66.2	17.2	9.58	8.66
(WY)	1991	1991	1995	1991	1991	1991	1991	1995	1992	1994	1992	1996

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1991 - 1996
ANNUAL TOTAL	19602.6	13272.2	
ANNUAL MEAN	53.7	36.3	38.9
HIGHEST ANNUAL MEAN			55.4
LOWEST ANNUAL MEAN			23.6
HIGHEST DAILY MEAN	624	Jun 15	624
LOWEST DAILY MEAN	3.7	Jan 1	2.7
ANNUAL SEVEN-DAY MINIMUM	4.0	Jan 1	4.0
INSTANTANEOUS PEAK FLOW		515 May 17	834 Jun 15 1995
INSTANTANEOUS PEAK STAGE		4.72 May 17	a 5.74 Jun 15 1995
ANNUAL RUNOFF (AC-FT)	38880	26330	28160
10 PERCENT EXCEEDS	250	131	126
50 PERCENT EXCEEDS	8.7	8.6	8.6
90 PERCENT EXCEEDS	4.7	4.7	4.5

e-Estimated.

a-Maximum gage height, 5.84 ft, Jun 15, 1993.

## DIVIDE CREEK BASIN

## 09089500 WEST DIVIDE CREEK NEAR RAVEN, CO

LOCATION.--Lat 39°19'52", long 107°34'46", in NE<sup>1/4</sup>SW<sup>1/4</sup> sec.29, T.8 S., R.91 W., Mesa County, Hydrologic Unit 14010005, on left bank 10 ft downstream from private road bridge, 0.8 mi upstream from Brook Creek, 8 mi south of Raven, and 16 mi south of Silt.

DRAINAGE AREA.--64.6 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1955 to current year. Water-quality data available, May 1986 to September 1990. Sediment data available, October 1989 to September 1990.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 7,050 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by water imported from Thompson Creek (Roaring Fork basin), Muddy Creek (Muddy Creek basin), and Buzzard Creek (Plateau Creek basin). Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	e8.0	e3.8	e3.9	e3.3	e4.7	30	181	98	25	2.0	.41
2	7.9	e7.6	e3.7	e3.8	e3.2	e4.4	37	194	103	22	2.1	.37
3	6.5	e6.2	e3.6	e3.6	e3.2	e4.3	41	218	110	21	1.8	.36
4	8.3	e5.0	e3.5	e3.8	e3.1	4.6	41	221	132	19	2.1	.34
5	8.9	e5.2	e3.6	e3.7	e3.8	5.0	37	259	143	19	1.9	.41
6	7.3	e5.3	e3.7	e3.6	e3.7	5.2	44	319	146	18	1.5	1.7
7	7.8	e5.0	e3.5	e3.7	e3.7	5.1	56	341	136	17	1.4	2.7
8	7.8	e5.0	e3.4	e3.8	e3.6	5.0	76	386	134	15	1.2	1.6
9	6.9	e5.2	e3.3	e3.8	e3.4	5.4	108	343	129	14	1.1	1.1
10	6.3	e4.6	e3.1	e3.7	e3.4	6.7	121	289	125	14	1.0	.81
11	6.3	e4.3	e3.0	e3.6	e3.3	9.2	131	337	119	11	.89	.75
12	6.1	e4.6	e3.1	e3.6	e3.3	10	88	395	116	10	.79	1.0
13	6.4	e4.5	e3.2	e3.6	e3.3	9.6	e62	409	109	9.2	.70	3.5
14	6.2	e4.4	e3.3	e3.5	e3.4	8.7	63	377	103	7.6	.67	2.8
15	6.2	e4.3	e2.6	e3.5	e3.4	8.5	e80	349	116	6.3	.64	2.1
16	5.7	e4.2	e2.3	e3.4	e3.4	10	71	365	102	7.1	.67	1.6
17	5.6	e4.1	e3.0	e3.3	e3.4	10	81	371	87	12	.60	1.8
18	5.3	e3.9	e2.5	e3.2	e3.5	9.1	80	298	78	12	.58	2.9
19	5.3	e3.8	e2.2	e3.3	e3.8	8.6	71	260	68	12	1.3	3.5
20	4.7	e3.8	e2.1	e3.4	e4.1	8.3	63	231	61	7.3	1.1	3.1
21	4.9	e3.7	e2.3	e3.5	e4.9	11	60	196	66	5.4	.97	2.8
22	6.4	e3.7	e2.4	e3.4	e5.3	16	57	183	63	4.5	.89	2.2
23	7.2	e3.6	e2.0	e3.4	e5.0	18	66	175	e54	3.8	.75	3.6
24	7.3	e3.5	e1.9	e3.4	e5.1	17	114	159	e47	3.2	.61	3.3
25	7.3	e3.4	e2.0	e3.3	e5.2	16	177	149	e42	3.0	.55	2.4
26	6.9	e3.6	e2.1	e3.2	e5.1	15	192	144	e37	2.9	.54	2.0
27	6.9	e3.7	e2.2	e3.2	e4.8	13	210	126	37	2.5	.67	1.9
28	6.4	e3.5	e2.3	e3.5	e4.8	13	197	120	38	2.3	.70	1.8
29	6.4	e3.7	e2.7	e3.7	e4.8	17	144	108	33	2.9	.70	1.7
30	6.5	e4.0	e3.1	e3.6	---	18	150	105	28	3.3	.54	1.6
31	6.9	---	e3.6	e3.4	---	21	---	104	---	2.4	.47	---
TOTAL	209.6	135.4	89.1	109.4	114.3	317.4	2748	7712	2660	314.7	31.43	56.15
MEAN	6.76	4.51	2.87	3.53	3.94	10.2	91.6	249	88.7	10.2	1.01	1.87
MAX	11	8.0	3.8	3.9	5.3	21	210	409	146	25	2.1	3.6
MIN	4.7	3.4	1.9	3.2	3.1	4.3	30	104	28	2.3	.47	.34
AC-FT	416	269	177	217	227	630	5450	15300	5280	624	62	111

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 1996, BY WATER YEAR (WY)

MEAN	3.19	3.16	2.66	2.46	2.55	6.24	47.8	200	129	26.9	4.25	2.36
MAX	15.3	13.1	9.05	8.07	7.76	29.3	146	491	389	84.9	24.8	10.4
(WY)	1985	1987	1985	1985	1986	1986	1985	1984	1995	1983	1983	1970
MIN	.097	.28	.002	.000	.000	.81	9.32	18.4	5.37	.075	.000	.000
(WY)	1957	1957	1977	1977	1977	1977	1968	1977	1977	1977	1977	1956

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1956 - 1996
ANNUAL TOTAL	26279.8	14497.48	
ANNUAL MEAN	72.0	39.6	
HIGHEST ANNUAL MEAN			36.0
LOWEST ANNUAL MEAN			76.2
HIGHEST DAILY MEAN	605	Jun 6	1984
LOWEST DAILY MEAN	e1.7	Jan 1	3.38
ANNUAL SEVEN-DAY MINIMUM	2.1	Dec 20	
INSTANTANEOUS PEAK FLOW		.34 Sep 4	
INSTANTANEOUS PEAK STAGE		.41 Aug 30	
ANNUAL RUNOFF (AC-FT)	52130	635 May 8	b1410 May 14 1984
10 PERCENT EXCEEDS	310	4.42 May 8	5.83 May 14 1984
50 PERCENT EXCEEDS	7.3	133	26110
90 PERCENT EXCEEDS	2.7	4.9	120
		1.6	3.8
			.66

e-Estimated.

a-No flow at times in most years.

b-From rating curve extended above 670 ft<sup>3</sup>/s.

**09093700 COLORADO RIVER NEAR DE BEQUE, CO**

LOCATION.--Lat 39°21'45", long 108°09'07", in NE<sup>1/4</sup>SW<sup>1/4</sup> sec.7, T.8 S., R.96 W., Mesa County, Hydrologic Unit 14010006, on left bank 3.0 mi downstream from Alkali Creek and 3.8 mi northeast of De Beque.

DRAINAGE AREA.--7,370 mi<sup>2</sup>.

PERIOD OF RECORD.--Streamflow records, October 1966 to current year. Water-quality data available, August 1973 to September 1982. Sediment data available, October 1974 to September 1976.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 4,940 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, and diversions for irrigation of about 158,000 acres. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2990	2600	2390	2240	e2180	2080	3880	6150	9740	11100	3090	2350
2	2770	2800	2380	2080	2060	2150	4160	6290	10000	10200	2960	2300
3	2640	2660	2380	2030	1940	2190	4660	6460	10700	9440	2890	2300
4	2630	2490	2340	2050	1810	2200	4990	6370	12000	8930	2900	2270
5	2670	2450	2360	2220	1920	2250	4890	6950	13100	8490	2900	2250
6	2710	2460	2380	2130	2220	2300	4870	8060	14500	8250	2800	2280
7	2710	2480	2380	1970	2270	2220	4990	9040	15000	8130	2700	2350
8	2690	2510	2380	2000	2200	2140	5250	9950	15000	8050	2630	2400
9	2660	2490	2320	2020	2350	2120	5780	10900	14900	7680	2560	2300
10	2630	2560	2280	2070	2240	2200	6690	11200	14600	6980	2490	2260
11	2600	2590	2280	2100	2220	2240	7360	11200	14300	6440	2450	2230
12	2590	2370	2280	2050	2120	2340	7240	12000	14200	5940	2460	2190
13	2630	2410	2270	2020	2060	2450	6700	13700	14200	5570	2400	2380
14	2750	2420	2300	1990	2040	2500	6300	15400	14200	5270	2310	2490
15	2740	2460	2300	1960	2130	2520	5770	16300	14500	5040	2240	e2540
16	2670	2470	2080	1980	2170	2690	5530	17500	15300	5000	2340	e2520
17	2610	2470	2040	2220	2150	2860	5580	19300	14700	4740	2390	e2500
18	2600	2440	1970	2150	2190	2880	5820	20300	14800	5000	2370	e2530
19	2570	2470	1880	1970	2320	2760	5980	20400	15200	4870	2400	2550
20	2410	2450	1840	2020	2280	2780	5590	20600	15000	4810	2340	2570
21	2300	2420	1830	2050	2680	2860	5310	19000	16000	4610	2340	e2530
22	2280	2410	1860	2020	3570	3030	5190	16800	17700	4430	2300	e2500
23	2420	2410	1830	2100	3200	3340	5010	15600	17900	4220	2310	e2470
24	2260	2410	1710	2080	2520	3490	5020	14600	16600	e3870	2370	2480
25	2210	2380	1670	2060	2340	3350	5790	13100	15500	e3620	2430	2540
26	2200	2370	1750	2090	2290	3230	6990	13300	14100	e3540	2550	2560
27	2230	2410	1780	1930	2250	3200	7040	12800	13600	3310	2500	2580
28	2120	2380	1780	1890	2190	3270	7250	11900	13400	3200	2440	2570
29	2380	2310	1840	2070	2120	3420	6870	10900	12500	3200	2410	2520
30	2630	2390	1920	2140	---	3610	6350	10200	11700	e3350	2400	2500
31	2350	---	2140	e2200	---	3750	---	9720	---	3240	2400	---
TOTAL	78650	73940	64940	63900	65930	84420	172850	395990	424940	180520	78070	72810
MEAN	2537	2465	2095	2061	2273	2723	5762	12770	14160	5823	2518	2427
MAX	2990	2800	2390	2240	3570	3750	7360	20600	17900	11100	3090	2580
MIN	2120	2310	1670	1890	1810	2080	3880	6150	9740	3200	2240	2190
AC-FT	156000	146700	128800	126700	130800	167400	342800	785400	842900	358100	154900	144400

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1996, BY WATER YEAR (WY)

MEAN	2177	2003	1730	1630	1636	1872	3031	8218	11900	6187	2891	2284
MAX	3537	3093	2855	2512	2353	2953	6449	19450	25230	16880	6420	4072
(WY)	1985	1985	1985	1985	1986	1986	1985	1984	1984	1995	1984	1984
MIN	1474	1289	1257	1176	1182	1178	1643	2273	2890	1862	1732	1685
(WY)	1978	1978	1990	1981	1977	1977	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1967 - 1996
ANNUAL TOTAL	1934600	1756960	
ANNUAL MEAN	5300	4800	3801
HIGHEST ANNUAL MEAN			7310
LOWEST ANNUAL MEAN			1785
HIGHEST DAILY MEAN	28800	Jun 18	1984
LOWEST DAILY MEAN	a1050	Jan 3	1977
ANNUAL SEVEN-DAY MINIMUM	1180	Jan 19	1990
INSTANTANEOUS PEAK FLOW		20900	1984
INSTANTANEOUS PEAK STAGE		11.09	1984
ANNUAL RUNOFF (AC-FT)	3837000	3485000	2754000
10 PERCENT EXCEEDS	16900	13200	9030
50 PERCENT EXCEEDS	2450	2530	2140
90 PERCENT EXCEEDS	1330	2060	1440

e-Estimated.

a-Also occurred Jan 24.

## ROAN CREEK BASIN

**09095300 DRY FORK AT UPPER STATION, NEAR DE BEQUE, CO**

LOCATION.--Lat 39°22'29", long 108°19'02", in SE<sup>1/4</sup>NW<sup>1/4</sup> sec.10, T.8 S., R.98 W., Garfield County, Hydrologic Unit 14010006, on left bank 120 ft upstream from county bridge on S. Dry Fork Road, 3.8 mi west of intersection with Roan Creek Road, and 7.8 mi northwest of De Beque.

DRAINAGE AREA.--97.4 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--October 1995 to September 1996.

GAGE.--Water-stage recorder. Elevation of gage is 5,385 ft above sea level, from topographic map.

REMARKS.-- Records fair except for estimated daily discharges, which are poor. Natural flow of stream affected March to October by diversions for irrigation upstream from gage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e3.3	3.5	e3.3	e2.2	3.2	e3.4	e.90	1.4	.52	.92	1.8	1.5
2	e3.3	3.4	e3.3	2.3	2.3	e3.4	.89	1.4	.48	.67	1.8	1.5
3	e3.3	e3.3	e3.3	2.5	e2.2	e3.5	.91	1.2	.41	.62	1.8	1.4
4	e3.4	e3.2	3.4	2.5	e2.3	4.2	.77	1.2	.37	.65	1.7	1.3
5	e3.3	e3.3	3.4	2.6	e2.4	6.6	.65	1.1	.36	.59	1.7	1.4
6	e3.2	3.4	3.4	e2.5	2.6	4.7	.69	.81	.36	.57	1.6	1.8
7	e3.2	3.4	3.4	e2.5	3.5	3.9	.73	.30	.73	.60	1.6	1.7
8	e3.3	3.4	3.4	e2.6	7.7	3.6	.63	.33	.99	1.7	1.6	1.4
9	e3.3	3.4	e3.3	2.7	5.7	4.9	.57	.37	.80	1.8	1.6	1.3
10	e3.3	3.6	e3.3	2.7	5.1	5.7	.59	.35	.92	1.7	1.6	1.2
11	e3.3	e3.4	e3.3	e2.6	3.4	6.5	1.3	.34	1.7	1.4	1.6	1.3
12	e3.4	3.5	3.4	e2.6	3.1	6.3	1.4	.32	1.9	.21	1.7	1.7
13	e3.3	3.5	3.5	e2.6	3.3	5.7	3.4	.34	2.0	.08	1.7	2.4
14	e3.2	3.5	3.6	e2.6	3.8	5.4	2.5	.33	2.2	.08	1.6	4.6
15	e3.3	3.4	3.4	e2.7	4.4	5.1	1.9	2.1	1.3	.71	1.7	1.5
16	e3.3	3.4	3.4	e2.8	4.2	5.1	1.6	1.4	.23	.88	1.7	1.1
17	e3.3	3.5	3.3	e3.3	4.7	4.8	1.6	1.5	.21	2.4	1.4	2.0
18	e3.3	3.5	e2.9	e2.8	5.2	4.2	1.6	1.2	.20	.77	.62	3.4
19	e3.3	3.5	e2.7	e2.9	4.3	3.9	1.6	1.1	.50	.59	.68	.94
20	3.2	3.5	e2.5	e2.9	22	3.8	1.7	1.6	1.6	.54	.93	.65
21	3.3	3.5	e2.4	e2.7	49	4.0	1.7	1.7	1.8	.81	1.0	.60
22	3.5	3.5	e2.3	e2.6	95	4.2	1.6	1.1	2.0	1.7	1.7	.59
23	3.4	3.4	e2.2	e2.3	8.4	4.5	1.5	1.2	1.7	1.7	1.7	.61
24	3.4	3.5	e2.1	e2.4	6.7	4.8	1.5	1.2	1.1	1.6	1.7	.55
25	3.4	3.5	e2.1	e2.4	4.7	5.0	1.5	1.4	.26	1.7	1.8	.56
26	3.4	3.6	e2.1	e2.2	4.0	4.5	1.4	1.3	.31	1.8	1.7	1.0
27	3.3	3.6	e2.1	e2.3	e3.4	e.90	1.5	1.1	1.1	1.7	1.7	1.1
28	3.3	e3.4	e2.1	e2.4	e3.3	e.90	1.6	.86	1.3	1.7	1.6	1.4
29	3.4	e3.3	e2.1	e2.5	e3.3	e.90	1.7	.49	1.0	2.0	1.6	1.3
30	3.4	e3.3	e2.2	2.7	--	e.90	1.6	.47	.76	2.1	1.5	1.3
31	3.3	--	e2.2	3.6	--	e.90	--	.44	--	1.8	1.5	--
TOTAL	102.9	103.2	89.4	81.0	273.2	126.20	41.53	29.95	29.11	36.09	47.93	43.10
MEAN	3.32	3.44	2.88	2.61	9.42	4.07	1.38	.97	.97	1.16	1.55	1.44
MAX	3.5	3.6	3.6	3.6	95	6.6	3.4	2.1	2.2	2.4	1.8	4.6
MIN	3.2	3.2	2.1	2.2	2.2	.90	.57	.30	.20	.08	.62	.55
AC-FT	204	205	177	161	542	250	82	.59	.58	.72	.95	.85

## SUMMARY STATISTICS

## FOR 1996 WATER YEAR

ANNUAL TOTAL	1003.61
ANNUAL MEAN	2.74
HIGHEST DAILY MEAN	95
LOWEST DAILY MEAN	a .08
ANNUAL SEVEN-DAY MINIMUM	Jul 13
INSTANTANEOUS PEAK FLOW	.34
INSTANTANEOUS PEAK STAGE	Feb 22
ANNUAL RUNOFF (AC-FT)	4.50
10 PERCENT EXCEEDS	1990
50 PERCENT EXCEEDS	3.9
90 PERCENT EXCEEDS	2.1
	.60

e-Estimated.

a-Also occurred Jul 14.

b-From slope-conveyance calculation.

**09095300 DRY FORK AT UPPER STATION, NEAR DE BEQUE, CO--Continued**  
**(National Water-Quality Assessment Program station)**

**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--October 1995 to September 1996.

REMARKS.--Upper Colorado River Basin National Water Quality Assessment station (NAWQA).

**WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996**

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L) CACO3	CALCIUM DIS- SOLVED (MG/L) AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L) AS MG)	SODIUM, DIS- SOLVED (MG/L) AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L) AS K)		
OCT 19...	1130	3.4	2050	8.5	6.0	10.3	630	88	100	220	4	2.4		
DEC 13...	1145	3.4	1970	8.4	5.0	10.4	640	91	100	230	4	2.3		
JAN 17...	1220	3.4	1920	8.3	1.5	11.1	610	91	93	210	4	3.4		
FEB 20...	1250	5.6	1710	8.4	3.5	10.9	500	77	75	190	4	3.4		
MAR 18...	1310	4.0	2010	8.6	6.0	10.2	620	89	96	230	4	2.2		
APR 19...	1050	1.6	3390	8.6	5.5	11.0	1000	140	160	440	6	3.2		
MAY 23...	1245	1.3	3370	8.5	13.5	8.6	980	130	160	440	6	5.1		
JUN 11...	0910	1.6	2660	8.5	13.5	7.9	890	110	150	360	5	3.2		
JUL 03...	0845	0.67	3630	8.4	15.0	8.5	1100	130	190	490	6	3.4		
	1410	1.6	2320	8.6	24.0	6.8	740	83	130	300	5	2.7		
AUG 05...	1320	1.9	2310	8.5	18.5	8.0	720	89	120	290	5	2.9		
	1305	1.7	2290	8.5	21.0	8.0	700	82	120	290	5	2.7		
SEP 05...	0900	1.4	2380	8.5	14.5	10.0	750	87	130	300	5	2.9		
<hr/>														
DATE		BICAR-a (MG/L AS HCO3)	CAR-b (MG/L AS CO3)	ALKA-c (MG/L AS CACO3)	LINITY WAT DIS TOT IT FIELD	SULFATE DIS- FIELD	CHLO- RIDE, DIS- FIELD	FLUO- RIDE, DIS- FIELD	SILICA, DIS- SOLVED (MG/L AS CL)	SOLIDs, RESIDUE AT 180 DEG. C (MG/L AS F)	SOLIDs, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L AS SIO2)	SOLIDs, DIS- SOLVED (TONS AC-FT)	SOLIDs, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
OCT 19...	501	--	413	740	9.6	0.2	16	1450	1420	1.97	13.3	<0.01		
DEC 13...	410	18	366	700	8.5	0.2	17	1360	1370	1.85	12.5	<0.01		
JAN 17...	405	11	350	670	8.6	0.2	15	1390	1300	1.89	12.8	--		
FEB 20...	329	5	278	590	7.3	0.3	12	1210	1120	1.65	18.5	0.01		
MAR 18...	421	17	373	720	8.6	0.3	16	1430	1390	1.94	15.4	<0.01		
APR 19...	539	13	464	1500	15	0.3	14	2640	2560	3.59	11.4	<0.01		
MAY 23...	517	18	454	1500	16	0.4	12	2620	2540	3.56	9.27	0.02		
JUN 11...	439	24	400	1100	11	0.4	13	2000	1990	2.72	8.80	0.02		
JUL 03...	484	26	441	1700	14	0.3	10	2870	2810	3.90	5.22	0.03		
	375	23	345	950	9.4	0.3	16	1730	1700	2.35	7.47	0.01		
AUG 05...	320	11	280	940	9.8	0.3	16	1730	1640	2.35	8.87	0.01		
	444	4	370	930	9.1	0.3	15	1680	1670	2.28	7.89	0.01		
SEP 05...	437	23	396	960	9.9	0.3	13	1770	1740	2.41	6.83	0.01		

a-Field dissolved bicarbonate, determined by incremental titration method.

b-Field dissolved carbonate, determined by incremental titration method.

c-Field total dissolved alkalinity, determined by incremental titration method.

## ROAN CREEK BASIN

**09095300 DRY FORK AT UPPER STATION NEAR DEBEQUE, CO--Continued**  
**(National Water-Quality Assessment Program station)**

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO-GEN, NO <sub>2</sub> +NO <sub>3</sub>	NITRO-GEN, AMMONIA	NITRO-GEN, AM- MONIA + DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM- MONIA + ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS DIS-SOLVED TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED TOTAL (MG/L AS P)	CARBON, ORGANIC SUS-PENDED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED (MG/L AS C)	MANGANESE, IRON, SOLVED (UG/L AS FE)	SELE- NIUM, DIS-SOLVED (UG/L AS SE)
OCT 19...	0.30	<0.015	0.3	<0.2	<0.01	<0.01	0.02	4.6	0.3	<3	15	--
DEC 13...	0.32	<0.015	0.3	<0.2	0.01	<0.01	<0.01	4.2	0.4	<3	20	--
JAN 17...	--	--	--	--	--	--	--	6.9	1.2	19	34	--
FEB 20...	0.32	<0.015	1.9	0.4	0.68	0.02	0.01	9.2	6.6	16	38	--
MAR 18...	0.34	<0.015	0.4	0.2	0.10	<0.01	<0.01	4.1	1.6	<3	38	2
APR 19...	1.4	<0.015	0.3	0.3	0.01	<0.01	<0.01	5.5	0.4	12	59	--
MAY 23...	1.7	0.02	0.5	0.5	<0.01	<0.01	<0.01	7.3	0.4	17	21	--
JUN 11...	0.54	0.04	0.3	0.2	0.04	<0.01	<0.01	5.2	0.3	13	6	6
JUL 03...	2.3	0.02	0.4	0.3	<0.01	<0.01	0.01	5.5	0.2	17	4	7
15...	0.79	0.03	0.3	0.3	<0.01	<0.01	<0.01	5.2	0.4	<9	4	5
AUG 05...	0.75	0.02	0.3	<0.2	0.02	<0.01	<0.01	4.9	0.4	13	<3	4
16...	0.69	0.03	0.3	<0.2	<0.01	<0.01	0.01	4.9	0.2	<9	<3	4
SEP 05...	0.88	<0.015	0.4	0.3	<0.01	<0.01	<0.01	5.1	0.2	<9	<3	4

## SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET	SEDI-MENT, DIS-CHARGE, SUS-SUS-	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET	SEDI-MENT, DIS-CHARGE, SUS-SUS-
		PER SECOND	PENDED (MG/L)			PER SECOND	PENDED (MG/L)
			PENDED (T/DAY)				PENDED (T/DAY)
OCT 19...	1130	3.4	94	0.86			
DEC 13...	1145	3.4	103	0.95	JUN 11...	0910	1.6
JAN 17...	1220	3.4	184	1.7	JUL 03...	0845	0.67
FEB 20...	1250	5.6	1870	29	15...	1410	1.6
MAR 18...	1310	4.0	205	2.2	15...	1415	1.6
APR 19...	1050	1.6	62	0.27	AUG 05...	1320	1.9
MAY 23...	1245	1.3	62	0.22	16...	1305	1.7
				SEP 05...	0900	1.4	9
							0.03

d-Suspended-sediment concentration determined from a subsample split of a composite sample.

**09095500 COLORADO RIVER NEAR CAMEO, CO**

LOCATION.--Lat 39°14'20", long 108°16'00", in SW<sup>1/4</sup>SW<sup>1/4</sup> sec.30, T.9 S., R.97 W., Mesa County, Hydrologic Unit 14010006, on left bank 100 ft north of Interstate 70, 0.5 mi upstream from Jackson Canyon, 5.9 mi upstream from Grand Valley project diversion dam, and 7 mi northeast of Cameo.

DRAINAGE AREA.--8,050 mi<sup>2</sup>, approximately.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--October 1933 to current year.

REVISED RECORDS.--WRD Colo. 1973: 1970.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 4,813.73 ft above sea level, (Levels by Colorado Department of Highways). Prior to Oct. 10, 1934, nonrecording gage on river and water-stage recorder on Highline Canal, about 10 mi downstream at different datum. Oct. 10, 1934 to Feb. 27, 1958, water-stage recorder at site 3.0 mi downstream at datum 22.55 ft, lower.

REMARKS.--Records good except for estimated daily discharges, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, and diversion for irrigation of about 160,000 acres.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3250	2730	2490	2290	2140	2200	3740	5940	9090	10900	3120	2270
2	3050	2850	2480	2270	1980	2250	3970	6070	9410	10100	3040	2250
3	2950	2770	2480	2150	1900	2310	4370	6260	10100	9230	2960	2240
4	2930	2660	2440	2130	1880	2320	4670	6130	11300	8710	2960	2220
5	2940	2640	2450	2190	1900	2370	4580	6720	12400	8180	2960	2220
6	2930	2640	2450	2090	2180	2420	4620	7930	13800	7870	2890	2270
7	2930	2650	2460	1990	2290	2350	4670	8790	14300	7710	2800	2330
8	2920	2650	2460	2050	2250	2280	4900	9760	14400	7620	2730	2360
9	2890	2640	2420	2050	2280	2260	5380	10700	14300	7210	2660	2280
10	2870	2680	2390	2000	2270	2330	6420	11000	14100	6440	2580	2260
11	2840	2710	2380	2040	2240	2390	7250	11000	13800	5850	2530	2240
12	2810	2560	2390	2010	2170	2470	7280	11600	13700	5370	2490	2240
13	2820	2590	2380	2000	2120	2570	6740	13200	13700	5050	2440	2360
14	2890	2580	2400	1980	2100	2620	6180	15000	13800	4790	2360	2470
15	2890	2600	2400	1930	2190	2640	5590	16000	14100	4630	2290	2500
16	2850	2600	2250	1920	2250	2750	5300	17200	15000	4600	2340	2500
17	2790	2600	2200	2140	2240	2900	5310	19300	14300	4450	2350	2540
18	2780	2590	2160	2120	2280	2940	5580	20700	14500	4590	2310	2590
19	2750	2600	2080	2030	2390	2880	5750	20700	15000	4500	2310	2500
20	2670	2580	2050	2070	2430	2860	5350	21100	14700	4460	2250	e2550
21	2590	2550	2040	2030	3370	2930	5070	19600	15800	4300	2250	e2500
22	2570	2530	2090	1980	4680	3040	4940	16800	18000	4170	2210	e2470
23	2670	2530	2130	2080	3330	3290	4810	15300	18500	4000	2220	e2400
24	2580	2540	1990	2090	2700	3450	4790	14200	16800	3750	2270	2440
25	2520	2510	1940	2010	2450	3340	5470	12700	15600	3560	2310	2490
26	2500	2510	2020	2070	2390	3260	6910	12700	13900	3480	2410	2510
27	2510	2520	2010	1970	2340	3230	7020	12400	13400	3350	2390	2540
28	2430	2490	1980	1900	2300	3280	7270	11400	13200	3220	2350	2510
29	2620	2440	2010	2050	2240	3390	6890	10500	12400	3200	2310	2470
30	2780	2490	2050	2010	--	3540	6210	9740	11600	3310	2310	2460
31	2600	--	2150	2160	--	3640	--	9160	--	3230	2310	--
TOTAL	86120	78030	69620	63800	69280	86500	167030	389600	415000	171830	77710	71980
MEAN	2778	2601	2246	2058	2389	2790	5568	12570	13830	5543	2507	2399
MAX	3250	2850	2490	2290	4680	3640	7280	21100	18500	10900	3120	2590
MIN	2430	2440	1940	1900	1880	2200	3740	5940	9090	3200	2210	2220
AC-FT	170800	154800	138100	126500	137400	171600	331300	772800	823200	340800	154100	142800

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1996, BY WATER YEAR (WY)

MEAN	2110	1931	1693	1573	1589	1792	3200	9194	12630	5935	2823	2173
MAX	3732	3253	3002	2621	2775	3365	8615	20290	25830	17430	6571	4271
(WY)	1985	1985	1985	1985	1986	1986	1962	1984	1984	1957	1984	1984
MIN	1084	1037	1004	940	941	1020	1730	2536	2959	1515	1332	1243
(WY)	1935	1935	1935	1964	1935	1935	1961	1977	1977	1934	1940	1934

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1934 - 1996
ANNUAL TOTAL	2012770	1746500	
ANNUAL MEAN	5514	4772	3892
HIGHEST ANNUAL MEAN			7605
LOWEST ANNUAL MEAN			1937
HIGHEST DAILY MEAN	29100	Jun 18	1984
LOWEST DAILY MEAN	1200	Feb 17	1977
ANNUAL SEVEN-DAY MINIMUM	1420	Feb 16	
INSTANTANEOUS PEAK FLOW		21500	38000
INSTANTANEOUS PEAK STAGE		10.73	May 26
ANNUAL RUNOFF (AC-FT)	3992000	3464000	1984
10 PERCENT EXCEEDS	17200	12700	9700
50 PERCENT EXCEEDS	2680	2640	2120
90 PERCENT EXCEEDS	1560	2090	1360

e-Estimated.

## COLORADO RIVER MAIN STEM

**09095500 COLORADO RIVER NEAR CAMEO, CO--Continued**  
**(National Water-Quality Assessment Program station)**

**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--October 1933 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1935 to current year.

WATER TEMPERATURE: April 1949 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1982.

REMARKS.--Upper Colorado River Basin National Water Quality Assessment station (NAWQA). Daily maximum and minimum specific conductances previous to October 1995 are available in district office. Daily record of water temperature is good. Daily record of specific conductance is fair, except Sept. 18-19 which is poor. Missing daily data were due to sensor fouling or instrument malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,970 microsiemens Jan. 19, 1940; minimum, 190 microsiemens June 17-18, 1993.

WATER TEMPERATURE: Maximum, 28.5°C July 22, 1989; minimum, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 1,120 microsiemens Feb. 25-26; minimum, 241 microsiemens June 23.

WATER TEMPERATURE: Maximum 22.7°C Aug. 12; minimum 0.0°C on many days during winter months.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET SECOND	SPE-CIFIC DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	
OCT 20...	1145	2680		918	8.3	8.5	10.2	230	66	15	85	2	3.0
NOV 21...	1240	2570		909	8.5	5.5	10.9	210	62	14	93	3	3.0
JAN 12...	1220	1920		922	8.2	0.0	12.8	230	65	16	99	3	3.0
FEB 05...	1500	1870		1080	8.3	1.0	12.8	230	66	17	120	3	3.4
MAR 05...	1300	2350		966	8.2	5.5	10.8	220	62	16	100	3	3.2
APR 04...	1315	4760		587	8.0	10.0	9.8	160	47	11	52	2	3.0
MAY 13...	1437	13800		331	8.1	13.5	8.8	110	34	7.2	20	0.8	1.4
	20...	1545	21200	263	7.9	12.0	9.0	97	29	5.9	12	0.5	1.3
JUN 07...	1048	14100		294	8.2	12.0	8.6	100	31	6.3	18	0.8	1.2
JUL 08...	1111	7370		419	8.2	16.5	8.2	120	35	6.9	33	1	1.9
	22...	1415	4130	599	8.5	21.0	8.4	160	49	9.7	55	2	2.4
AUG 28...	0911	2380		914	8.6	19.0	7.6	210	60	14	97	3	3.4
SEP 09...	1204	2280		962	8.7	17.0	8.8	230	67	15	100	3	3.6
DATE		BICAR- <sup>a</sup> BONATE WATER DIS IT FIELD (MG/L AS HCO3)	CAR- <sup>b</sup> BONATE WATER DIS IT FIELD (MG/L AS CO3)	ALKA- <sup>c</sup> LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3)	CHLO- RIDE, DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, RESIDUE AT 180 DEG. C SOLVED (MG/L AS F)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)		
OCT 20...		135	--	123	120	130	0.2	7.2	525	493	0.71	3800	<0.01
NOV 21...		148	4	128	120	130	0.3	6.6	514	506	0.70	3570	<0.01
JAN 12...		142	--	116	120	120	0.3	9.6	524	504	0.71	2720	<0.01
FEB 05...		143	4	123	130	170	0.4	9.6	616	592	0.84	3110	<0.01
MAR 05...		148	--	121	120	140	0.3	8.4	555	524	0.75	3520	<0.01
APR 04...		126	--	103	85	63	0.3	8.8	342	334	0.47	4400	<0.01
MAY 13...		90	--	74	40	22	0.2	8.6	203	178	0.28	7560	<0.01
	20...	88	--	72	31	14	0.2	8.0	155	145	0.21	8870	<0.01
JUN 07...		92	--	75	32	22	0.2	6.7	169	163	0.23	6430	<0.01
JUL 08...		96	--	79	51	43	0.3	7.0	245	226	0.33	4880	<0.01
	22...	100	6	92	73	74	0.3	6.5	344	325	0.47	3840	0.01
AUG 28...		148	4	127	120	140	0.3	7.9	522	519	0.71	3350	<0.01
SEP 09...		142	6	126	130	140	0.3	7.8	560	540	0.76	3450	<0.01

a-Field dissolved bicarbonate, determined by incremental titration method.

b-Field dissolved carbonate, determined by incremental titration method.

c-Field total dissolved alkalinity, determined by incremental titration method.

**09095500 COLORADO RIVER NEAR CAMEO, CO--Continued**  
**(National Water-Quality Assessment Program station)**

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO-GEN, NO <sub>2</sub> +NO <sub>3</sub> DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS. (MG/L AS P)	PHOS-PHORUS SOLVED (MG/L AS P)	CARBON, ORGANIC CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED (MG/L AS C)	IRON, DIS-SOLVED TOTAL (MG/L AS C)	MANGANESE, DIS-SOLVED (UG/L AS FE)	SELENIUM, DIS-SOLVED (UG/L AS SE)
OCT 20...	0.06	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01	2.2	0.4	15	5	<1
NOV 21...	<0.05	<0.015	<0.2	<0.2	0.01	<0.01	<0.01	2.0	0.4	17	7	--
JAN 12...	0.35	0.04	0.2	0.3	0.02	0.01	<0.01	1.7	0.4	13	16	--
FEB 05...	0.26	0.04	<0.2	<0.2	<0.01	0.02	0.02	1.8	0.3	8	21	1
MAR 05...	0.21	0.04	0.2	<0.2	0.04	0.01	0.02	2.0	0.4	5	15	1
APR 04...	0.32	0.08	0.7	0.2	0.23	0.01	0.01	2.9	3.2	16	18	--
MAY 13...	0.14	<0.015	1.2	<0.2	0.54	<0.01	<0.01	4.0	3.7	24	16	<1
20...	0.14	0.02	0.5	<0.2	0.14	<0.01	0.01	4.1	2.1	31	8	<1
JUN 07...	0.13	0.04	0.3	<0.2	0.08	<0.01	0.01	2.8	1.2	24	4	--
JUL 08...	0.12	0.03	<0.2	<0.2	0.02	<0.01	0.01	2.2	0.5	21	4	--
22...	0.06	0.04	<0.2	<0.2	<0.01	<0.01	<0.01	2.3	0.3	12	5	--
AUG 28...	<0.05	<0.015	0.2	<0.2	0.03	0.04	<0.01	3.1	0.6	10	4	<1
SEP 09...	0.07	<0.015	0.3	<0.2	0.02	0.01	<0.01	2.5	0.5	9	5	<1

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, DIS- CHARGE, SUS- PENDED (MG/L) (T/DAY)	SED. SUSP. SIEVE DIAM. % FINE THAN .062 MM TYPE (CODE)
OCT 20...	1145	2680	10 <sup>d</sup>	72 -- 3039
NOV 21...	1240	2570	6 <sup>d</sup>	42 -- 3039
JAN 12...	1220	1920	17 <sup>d</sup>	88 -- 3039
FEB 05...	1500	1870	14 <sup>d</sup>	71 -- 3039
MAR 05...	1300	2350	52 <sup>d</sup>	330 -- 3039
APR 04...	1315	4760	428 <sup>d</sup>	5500 -- 3039
MAY 13...	1437	13800	582 <sup>d</sup>	21700 -- 3039
13...	1442	13800	629 <sup>d</sup>	23400 -- 3039
13...	1515	13800	677	25200 58 3009
20...	1545	21200	261 <sup>d</sup>	14900 -- 3039
20...	1620	21200	298	17100 57 3009
JUN 07...	1048	14100	138 <sup>d</sup>	5250 -- 3039
07...	1115	14100	186	7080 43 3009
JUL 08...	1111	7370	40 <sup>d</sup>	796 -- 3039
08...	1141	7480	47	949 59 3009
22...	1415	4130	20 <sup>d</sup>	223 -- 3039
22...	1445	4130	24	268 67 3009
AUG 28...	0825	2380	14 <sup>d</sup>	90 -- 3009
28...	0911	2380	11 <sup>d</sup>	71 -- 3039
SEP 09...	1126	2280	11 <sup>d</sup>	68 -- 3009
09...	1204	2280	9 <sup>d</sup>	55 -- 3039

d-Suspended-sediment concentration determined from a subsample split of a composite sample.

f-Sampler type: code 3039 is a D-77TM water-quality sampler; code 3009 is a D-74 suspended-sediment sampler.

## COLORADO RIVER MAIN STEM

**09095500 COLORADO RIVER NEAR CAMEO, CO--Continued**  
**(National Water-Quality Assessment Program station)**

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	881	855	865	956	899	915	907	879	884	---	---	---
2	925	879	894	900	865	885	891	883	888	---	---	---
3	924	906	913	872	858	864	890	880	885	---	---	---
4	934	923	926	899	868	878	893	882	887	---	---	---
5	937	924	932	918	899	907	897	890	893	---	---	---
6	925	916	920	924	905	912	896	884	888	---	---	---
7	921	902	911	953	918	936	897	874	889	---	---	---
8	913	900	908	926	902	909	887	881	884	996	971	989
9	912	903	909	905	893	899	892	881	886	---	---	---
10	913	906	910	893	851	867	909	890	896	---	---	---
11	918	902	911	896	874	884	909	897	904	1040	966	995
12	941	908	917	902	855	873	911	902	908	992	916	936
13	920	906	914	917	902	909	911	904	906	974	953	959
14	914	890	899	911	896	901	910	903	906	987	961	972
15	890	871	877	924	888	900	917	903	912	1010	981	990
16	884	866	872	912	863	873	932	902	911	1010	993	1000
17	908	881	890	890	871	877	969	932	954	1000	951	979
18	903	892	897	882	865	873	987	969	977	---	---	---
19	910	899	903	882	867	872	1020	986	1010	---	---	---
20	934	904	910	873	860	866	1050	1020	1030	---	---	---
21	967	934	942	877	863	869	1060	1030	1040	1010	975	989
22	987	966	973	882	865	873	1060	1030	1040	986	968	978
23	1010	987	999	885	862	876	---	---	---	---	---	---
24	1000	968	985	880	865	873	---	---	---	---	---	---
25	1010	1000	1010	882	871	875	1040	1000	1020	1030	1010	1020
26	1080	1010	1020	890	878	883	1070	1040	1060	1020	996	1010
27	1080	1020	1030	894	878	887	1080	1000	1050	---	---	---
28	1030	1010	1020	894	873	881	1060	1030	1050	1030	1010	1020
29	1060	988	1020	898	882	887	1100	1040	1060	1050	1000	1030
30	993	908	934	921	890	902	1080	1030	1050	1000	962	978
31	956	875	915	---	---	---	1050	998	1020	972	902	940
MONTH	1080	855	933	956	851	887	---	---	---	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
1	942	893	911	1080	1050	1060	744	737	741	526	511	518
2	981	930	958	1070	1040	1050	744	743	744	533	526	530
3	1000	981	997	1050	990	1010	743	729	737	532	523	527
4	1050	992	1020	995	961	976	729	711	720	534	516	528
5	1080	1040	1070	975	938	956	711	664	687	516	481	494
6	1080	995	1040	944	913	926	664	604	638	494	475	483
7	1030	985	1000	916	874	895	604	580	591	495	449	479
8	1010	983	992	882	874	877	581	572	577	449	410	421
9	1010	997	1000	882	863	873	572	559	566	412	395	403
10	1020	998	1010	869	857	862	560	545	554	395	380	385
11	1030	1000	1010	860	828	839	545	517	533	384	362	372
12	1030	1010	1020	832	821	827	517	495	504	362	345	352
13	1060	1030	1040	826	816	821	499	493	496	345	315	331
14	1080	1060	1060	848	818	832	510	499	504	315	294	306
15	1080	1060	1070	818	794	798	520	510	514	295	289	292
16	1070	1030	1050	800	794	798	536	520	528	290	278	286
17	1050	1020	1030	798	763	778	546	536	541	278	264	274
18	1040	1030	1040	763	745	753	546	541	544	264	260	262
19	1050	1020	1030	745	731	736	542	536	539	263	259	262
20	1020	1000	1020	736	730	733	546	532	539	260	255	258
21	1000	950	972	736	723	729	552	546	550	275	255	263
22	976	913	941	730	718	722	558	547	553	293	275	286
23	945	897	920	722	711	715	565	555	561	302	289	297
24	1040	945	990	720	717	718	592	563	577	317	299	307
25	1120	1040	1080	720	715	717	579	540	563	334	316	328
26	1120	1090	1110	717	713	715	540	474	510	335	328	333
27	1110	1070	1090	717	714	715	485	468	476	340	326	331
28	1080	1060	1070	721	715	718	469	457	462	362	340	348
29	1070	1060	1060	725	720	722	481	469	474	380	362	371
30	---	---	---	728	722	725	511	481	497	390	378	384
31	---	---	---	738	727	732	---	---	---	394	386	390
MONTH	1120	893	1020	1080	711	817	744	457	567	534	255	368

**09095500 COLORADO RIVER NEAR CAMEO, CO--Continued**  
**(National Water-Quality Assessment Program station)**

## SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	394	380	386	336	322	330	786	765	778	907	890	897
2	381	370	376	350	335	345	816	786	796	918	904	906
3	371	349	363	375	350	364	823	805	812	919	905	911
4	349	320	339	393	365	381	829	812	824	921	912	916
5	321	303	316	402	391	398	833	812	823	---	---	---
6	305	283	298	404	393	400	834	814	827	---	---	---
7	291	279	286	456	398	411	855	834	849	---	---	---
8	289	279	285	426	402	409	873	851	860	---	---	---
9	285	276	281	420	402	411	892	873	883	---	---	---
10	288	279	284	450	420	436	909	892	903	---	---	---
11	292	282	288	480	450	465	920	909	917	---	---	---
12	299	289	294	501	476	487	922	909	916	---	---	---
13	298	289	294	522	500	511	929	913	922	---	---	---
14	303	292	298	546	522	530	952	928	937	---	---	---
15	296	285	292	561	545	551	977	952	960	---	---	---
16	285	278	280	568	557	561	985	966	976	---	---	---
17	291	279	285	609	558	579	967	926	944	---	---	---
18	288	274	282	611	582	592	934	925	930	997	928	959
19	280	266	275	587	577	582	931	920	925	983	964	975
20	278	269	273	590	582	587	925	909	917	---	---	---
21	272	256	268	600	587	592	---	---	---	---	---	---
22	256	243	248	603	584	594	941	925	932	---	---	---
23	246	241	243	611	593	598	948	937	941	---	---	---
24	261	246	256	649	611	626	952	915	931	957	940	947
25	277	258	267	685	649	663	922	893	910	952	937	942
26	293	277	289	699	685	693	898	866	885	949	914	928
27	303	290	298	720	695	707	877	857	863	931	912	920
28	306	298	302	744	720	732	889	877	882	915	899	906
29	314	298	308	770	744	761	916	882	898	924	907	910
30	327	313	322	774	755	766	914	891	899	938	923	927
31	---	---	---	789	753	764	900	890	895	---	---	---
MONTH	394	241	296	789	322	543	---	---	---	---	---	---

## TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	13.6	11.4	12.4	9.7	8.0	8.7	4.2	2.3	3.2	.2	.0	.1
2	13.8	11.1	12.4	8.1	6.2	7.0	4.1	2.2	3.2	.0	.0	.0
3	13.7	11.0	12.3	6.5	4.8	5.7	4.2	2.5	3.4	.1	.0	.0
4	12.6	11.0	11.8	5.9	3.9	4.9	4.3	2.7	3.6	.1	.0	.0
5	11.0	9.8	10.3	5.3	2.9	4.2	5.5	4.1	4.7	.5	.0	.2
6	10.6	8.3	9.5	5.5	3.5	4.5	5.8	4.1	4.9	.3	.0	.0
7	11.1	8.3	9.7	6.9	4.6	5.6	5.2	4.3	4.6	.2	.0	.0
8	11.7	9.0	10.3	7.0	5.0	6.0	4.6	3.6	4.0	.2	.0	.0
9	11.5	8.8	10.2	6.8	5.1	6.0	3.9	2.5	3.3	.3	.0	.1
10	12.1	9.4	10.7	6.3	4.7	5.8	3.6	2.2	2.9	.7	.0	.3
11	12.5	9.6	11.1	4.9	3.0	4.1	3.6	1.9	2.8	.7	.0	.3
12	12.0	10.5	11.3	5.3	3.4	4.3	3.9	2.7	3.3	.4	.0	.1
13	11.9	9.7	10.8	5.3	3.7	4.5	4.5	3.6	4.1	.6	.0	.2
14	11.2	8.8	10.1	6.2	3.8	5.0	5.3	4.2	4.7	.7	.0	.3
15	11.3	8.7	10.0	7.5	5.1	6.2	4.3	3.0	3.7	.7	.0	.3
16	11.2	8.8	10.0	7.2	5.3	6.3	3.4	2.3	2.8	1.3	.0	.7
17	11.5	8.9	10.2	7.1	5.1	6.1	2.8	1.5	2.1	2.0	1.1	1.5
18	11.7	8.9	10.3	6.5	4.7	5.6	2.0	.6	1.3	1.1	.0	.2
19	11.0	8.8	10.0	6.2	4.2	5.2	1.1	.0	.5	.2	.0	.0
20	10.0	7.7	8.9	6.0	4.0	5.0	.8	.0	.3	.3	.0	.1
21	9.7	6.9	8.4	5.7	3.9	4.9	.8	.0	.3	.7	.0	.2
22	9.1	7.5	8.2	6.3	4.3	5.3	.5	.0	.1	.6	.0	.2
23	7.7	5.4	6.7	6.7	4.8	5.7	.0	.0	.0	.2	.0	.1
24	7.8	5.3	6.6	5.8	4.3	5.1	.0	.0	.0	.4	.0	.1
25	7.7	5.1	6.5	5.3	3.6	4.4	.0	.0	.0	.6	.0	.2
26	8.2	5.7	6.9	4.4	3.6	3.9	.0	.0	.0	.1	.0	.0
27	8.8	6.4	7.6	4.0	2.8	3.4	.0	.0	.0	.1	.0	.0
28	8.2	6.3	7.3	2.8	2.0	2.3	.0	.0	.0	.3	.0	.1
29	7.4	5.7	6.6	3.3	1.6	2.4	.1	.0	.0	.3	.0	.1
30	9.0	6.6	7.7	3.8	2.0	2.9	.2	.0	.1	.9	.2	.5
31	8.7	7.3	8.1	--	--	--	.1	.0	.1	2.0	.9	1.5
MONTH	13.8	5.1	9.4	9.7	1.6	5.0	5.8	.0	2.1	2.0	.0	.2

## COLORADO RIVER MAIN STEM

**09095500 COLORADO RIVER NEAR CAMEO, CO--Continued**  
**(National Water-Quality Assessment Program station)**

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY												
1	2.3	1.1	1.6	4.1	1.0	2.6	11.1	8.8	9.9	11.0	9.0	10.0
2	1.6	.0	.7	5.0	1.3	3.1	9.8	8.9	9.3	11.6	9.4	10.6
3	.8	.0	.2	5.8	2.3	4.0	10.8	8.9	9.7	11.9	9.8	10.9
4	.1	.0	.0	6.1	3.5	4.8	10.1	8.7	9.6	12.4	9.8	11.2
5	1.4	.0	.6	5.9	4.4	5.2	9.6	7.5	8.6	13.1	10.2	11.8
6	2.6	.7	1.6	6.4	4.6	5.3	10.2	8.0	9.2	12.9	10.8	12.0
7	4.1	2.2	2.9	5.7	3.9	4.8	10.8	8.9	9.9	12.6	10.5	11.7
8	4.2	2.0	3.1	6.6	3.1	4.8	11.8	9.7	10.7	13.1	9.8	11.6
9	4.1	2.0	3.1	7.8	3.9	5.8	12.2	10.2	11.3	12.6	10.8	11.7
10	4.0	2.3	3.2	8.2	5.2	6.7	12.0	9.7	10.7	12.3	9.4	10.9
11	3.2	1.7	2.5	9.2	5.4	7.4	10.8	8.3	9.1	12.7	9.5	11.2
12	3.3	1.1	2.3	10.1	7.0	8.4	8.8	7.2	8.2	13.6	10.4	12.0
13	3.4	.7	2.1	8.8	7.5	8.1	8.6	6.6	7.4	13.6	10.9	12.3
14	3.9	1.0	2.5	8.2	6.5	7.3	8.1	5.9	6.9	13.1	10.7	12.0
15	4.7	1.8	3.2	9.6	6.4	7.9	8.7	6.3	7.6	12.8	10.4	11.7
16	4.6	2.3	3.5	10.1	7.1	8.6	9.7	7.5	8.6	12.6	10.6	11.7
17	4.8	2.3	3.6	9.4	7.3	8.4	9.7	9.0	9.3	13.0	10.9	12.0
18	5.3	3.5	4.3	8.1	6.1	7.1	9.2	7.6	8.2	12.2	10.4	11.3
19	5.0	3.5	4.2	7.5	5.2	6.4	7.8	6.5	7.2	12.4	10.0	11.2
20	5.4	3.9	4.5	8.0	4.8	6.4	7.2	5.7	6.4	12.1	10.3	11.2
21	4.2	2.7	3.3	9.3	5.9	7.5	8.3	5.4	6.8	11.2	9.5	10.4
22	3.3	2.6	3.0	9.7	7.1	8.4	9.3	6.9	8.1	12.2	9.6	10.8
23	3.5	1.6	2.6	8.8	6.8	8.1	10.7	8.0	9.3	11.8	10.3	11.0
24	4.0	1.7	2.8	7.7	5.8	6.7	11.9	9.9	10.9	11.1	9.8	10.3
25	3.4	2.0	2.8	6.2	4.9	5.5	13.0	10.9	12.0	10.4	9.7	10.0
26	3.4	2.3	2.8	6.9	4.1	5.5	12.3	10.4	11.4	10.2	8.8	9.5
27	3.4	1.3	2.3	7.2	4.9	6.0	11.8	9.7	11.0	10.6	8.8	9.6
28	3.2	.8	2.0	8.4	5.9	7.1	11.2	8.1	9.3	10.2	8.9	9.5
29	3.4	1.1	2.3	9.5	7.2	8.3	8.8	6.4	7.7	12.0	8.3	10.1
30	---	---	---	10.1	8.2	9.0	10.4	7.2	8.8	12.9	10.8	11.8
31	---	---	---	10.9	8.4	9.5	---	---	---	14.4	11.2	12.8
MONTH	5.4	.0	2.5	10.9	1.0	6.6	13.0	5.4	9.1	14.4	8.3	11.1
JUNE												
1	14.4	11.8	13.2	18.5	15.1	16.7	22.0	19.3	20.6	20.4	17.3	18.9
2	14.7	11.6	13.2	19.1	15.8	17.5	21.4	19.3	20.3	21.2	17.7	19.4
3	14.9	11.8	13.4	18.9	16.0	17.6	22.4	19.4	20.7	21.3	17.6	19.5
4	14.9	12.1	13.5	19.4	16.0	17.7	21.4	19.5	20.4	21.2	17.4	19.3
5	14.3	12.1	13.3	19.3	16.4	17.6	20.9	17.6	19.3	19.9	17.6	18.5
6	14.4	12.0	13.2	19.5	16.6	18.1	21.3	17.6	19.4	18.3	16.7	17.5
7	14.0	11.5	12.8	19.0	16.4	17.9	21.7	17.8	19.8	18.8	15.3	17.1
8	13.7	11.4	12.6	18.5	16.5	17.6	22.4	18.6	20.4	19.5	15.8	17.6
9	14.3	11.7	12.9	18.2	15.7	17.0	21.9	18.6	20.3	19.8	15.9	17.9
10	14.4	12.0	13.1	19.4	15.8	17.5	22.5	18.2	20.3	20.2	16.3	18.3
11	14.2	11.6	12.9	19.7	17.3	18.6	22.6	18.5	20.5	19.1	17.4	18.3
12	14.0	11.6	12.8	19.8	17.4	18.6	22.7	18.6	20.6	19.0	16.7	18.0
13	14.1	11.8	13.0	20.0	17.7	19.1	22.3	18.4	20.5	18.5	16.6	17.6
14	13.6	12.2	13.1	20.5	18.1	19.3	22.3	18.9	20.6	18.0	16.2	17.1
15	13.6	12.3	12.7	20.0	18.3	19.2	21.4	18.7	20.2	17.8	15.2	16.5
16	13.8	10.9	12.3	20.4	18.3	19.3	22.6	18.3	20.4	17.6	15.3	16.4
17	14.7	12.0	13.3	20.8	18.6	19.7	22.5	19.0	20.8	16.1	13.9	14.9
18	15.3	12.0	13.7	21.4	19.3	20.4	22.4	19.5	20.9	14.4	12.4	13.2
19	15.3	12.7	14.1	21.1	19.0	20.1	22.1	18.8	20.5	13.1	11.0	12.2
20	15.3	12.8	14.1	21.5	18.6	20.2	21.2	18.7	20.0	---	---	---
21	15.5	13.2	14.3	21.8	19.3	20.6	21.5	18.6	20.1	---	---	---
22	15.8	13.8	14.7	21.6	19.4	20.5	21.6	18.4	20.0	---	---	---
23	15.1	13.2	14.2	21.6	19.2	20.4	22.1	17.8	20.0	---	---	---
24	15.8	13.1	14.4	21.5	19.1	20.3	21.8	18.7	20.3	17.5	14.5	15.9
25	16.2	13.7	14.9	20.8	19.0	19.8	21.5	18.5	19.9	16.1	13.9	15.0
26	16.5	14.2	15.3	21.0	18.3	19.7	22.2	18.8	20.3	13.9	11.5	12.6
27	16.3	14.6	15.5	21.2	18.8	20.0	22.5	18.4	20.4	12.6	10.1	11.3
28	15.7	13.9	14.7	21.5	19.6	20.4	21.7	18.8	20.3	12.6	9.6	11.1
29	16.6	13.3	14.8	21.5	19.3	20.4	21.3	18.3	19.9	13.9	10.2	12.1
30	17.7	14.5	16.0	21.9	18.8	20.2	21.1	17.6	19.4	14.8	11.2	13.0
31	---	---	---	21.7	19.3	20.6	21.0	17.5	19.3	---	---	---
MONTH	17.7	10.9	13.7	21.9	15.1	19.1	22.7	17.5	20.2	---	---	---

## 09105000 PLATEAU CREEK NEAR CAMEO, CO

LOCATION.--Lat 39°11'00", long 108°16'02", in SW<sup>1/4</sup>SW<sup>1/4</sup> sec.18, T.10 S., R.97 W., Mesa County, Hydrologic Unit 14010005, on left bank 300 ft from State Highway 65, 1.15 mi upstream from mouth, and 4.0 mi northeast of Cameo.

DRAINAGE AREA.--592 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1935 to September 1983. October 1985 to current year. Prior to May 1936, monthly discharges only, published in WSP 1313.

REVISED RECORDS.--WSP 979: 1942. WSP 2124: Drainage area. WDR CO-83-2: 1973 (M), 1975 (M).

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 4,840 ft above sea level, from topographic map. Prior to Aug. 27, 1936, nonrecording gage.

REMARKS.--Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by storage reservoirs, diversions for irrigation of about 25,000 acres, return flow from irrigated areas, and for power development.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	260	177	136	e100	84	108	159	357	210	115	73	68
2	229	171	135	e110	78	107	222	397	206	108	73	67
3	216	152	133	e100	80	107	222	428	198	102	76	66
4	239	154	135	e100	105	110	218	463	191	101	77	67
5	229	145	137	e96	89	113	199	544	198	99	71	69
6	217	156	136	e100	84	123	201	605	207	98	72	85
7	215	154	132	e100	86	103	235	585	192	88	68	89
8	210	148	135	e100	88	107	279	564	173	86	69	80
9	205	150	122	e100	87	111	351	621	164	86	70	73
10	201	159	121	e98	90	118	430	514	163	83	70	74
11	194	138	126	e94	84	123	403	494	156	80	66	76
12	189	152	133	e94	79	136	335	550	151	78	66	83
13	185	156	131	e92	78	141	341	648	155	79	64	89
14	180	153	138	e94	82	136	267	726	159	74	66	95
15	180	150	113	e92	87	126	238	721	163	72	65	98
16	173	145	121	e96	87	132	252	897	175	75	67	94
17	171	141	124	e98	88	134	263	1220	157	106	70	114
18	165	138	109	e88	95	118	248	1140	140	95	69	168
19	164	134	118	e92	91	107	253	1100	137	92	68	152
20	163	133	e120	e96	118	112	214	964	132	91	66	141
21	162	134	121	e90	312	119	202	589	148	82	67	137
22	177	139	119	e94	320	136	188	603	153	76	69	138
23	174	137	e92	88	169	161	182	629	139	73	66	139
24	175	130	e96	93	143	144	234	545	127	71	68	137
25	172	129	e98	87	143	125	390	460	117	72	68	135
26	172	136	e90	e80	131	115	448	417	117	73	69	129
27	172	140	e94	e98	115	119	465	346	131	73	70	129
28	169	117	e98	112	112	122	512	300	137	71	72	125
29	167	143	e100	139	109	132	345	278	128	82	70	124
30	165	137	e110	80	---	134	312	261	119	81	67	119
31	162	---	e100	82	---	135	---	237	---	78	68	---
TOTAL	5852	4348	3673	2983	3314	3814	8608	18203	4743	2640	2140	3160
MEAN	189	145	118	96.2	114	123	287	587	158	85.2	69.0	105
MAX	260	177	138	139	320	161	512	1220	210	115	77	168
MIN	162	117	90	80	78	103	159	237	117	71	64	66
AC-FT	11610	8620	7290	5920	6570	7570	17070	36110	9410	5240	4240	6270

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 1996, BY WATER YEAR (WY)

MEAN	113	102	86.2	76.9	82.2	105	240	665	518	124	77.5	91.1
MAX	333	207	148	116	148	202	759	1825	2975	796	328	241
(WY)	1942	1987	1942	1972	1958	1986	1942	1942	1983	1995	1983	1986
MIN	25.2	37.3	42.1	41.4	42.7	58.3	71.9	33.8	19.8	16.6	13.4	17.4
(WY)	1978	1978	1991	1961	1978	1964	1990	1977	1977	1977	1977	1977

## SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1936 - 1996

ANNUAL TOTAL	159855	63478		
ANNUAL MEAN	438	173	191	
HIGHEST ANNUAL MEAN			542	1983
LOWEST ANNUAL MEAN			48.8	1977
HIGHEST DAILY MEAN	4080	Jun 16	1220	May 17
LOWEST DAILY MEAN	66	Jan 23	64	Aug 13
ANNUAL SEVEN-DAY MINIMUM	79	Jan 20	66	Aug 10
INSTANTANEOUS PEAK FLOW			1440	May 18
INSTANTANEOUS PEAK STAGE			4.81	May 18
ANNUAL RUNOFF (AC-FT)	317100	125900	5580	a7.99
10 PERCENT EXCEEDS	1350	337	5580	Jun 15 1973
50 PERCENT EXCEEDS	145	129	422	Jun 15 1977
90 PERCENT EXCEEDS	90	73	95	Aug 10 1977
			46	

e-Estimated.

a-Maximum gage height, 8.73 ft, Jun 16, 1995.

## PLATEAU CREEK BASIN

**09105000 PLATEAU CREEK NEAR CAMEO, CO--Continued**  
**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--November 1968 to August 1979, November 1993 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 1994 to current year.

WATER TEMPERATURE: June 1994 to current year.

INSTRUMENTATION.--Water-quality monitor since June 1994.

REMARKS.--Unpublished daily maximum and minimum specific-conductance data available in district office. Daily record of water temperature is good. Daily record of specific conductance is good. Interruptions in daily record are due to instrument malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 803 microsiemens, July 17, 1996; minimum, 160 microsiemens several days in June 1995.

WATER TEMPERATURE: Maximum, 26.2°C, July 4, 1996; minimum, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 803 microsiemens, July 17; minimum, 166 microsiemens, May 18.

WATER TEMPERATURE: Maximum, 26.2°C, July 4; minimum, 0.0°C on many days during winter months.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET	SPE-CIFIC CON- DUCT- PER ANCE	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 (COLS./ 100 ML)	E. COLI WATER WHOLE TOTAL (COL / 100 ML)	HARD- NESS TOTAL (MG/L) (AS CACO3)	CALCIUM DIS- SOLVED (MG/L) (AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L) (AS MG)
NOV 01...	1530	180	618	8.8	10.0	10.0	K4	K5	260	53	30
22...	1130	140	710	8.5	4.5	11.4	--	--	260	53	30
JAN 29...	1500	173	660	8.6	0.0	14.6	--	--	260	56	30
MAR 04...	1430	99	688	8.8	4.5	11.6	--	--	280	60	31
APR 04...	1445	202	512	8.4	10.5	10.4	40	K17	200	50	19
MAY 14...	1120	798	233	8.3	11.5	9.2	--	--	94	25	7.7
JUN 04...	1145	201	470	8.6	17.5	9.2	79	K18	190	43	19
26...	0900	115	596	8.7	17.0	9.1	--	--	240	50	29
JUL 10...	1010	80	671	8.6	22.5	10.7	--	--	260	48	35
AUG 12...	1010	68	713	8.8	18.0	8.3	K25	K21	270	43	40
SEP 24...	1045	139	653	8.7	14.0	10.4	--	--	260	52	32
<hr/>											
DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB SOLVED (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDIS, SUM OF CONSTITUENTS, (TONS DIS- SOLVED (MG/L AC-FT)	SOLIDIS, DIS- SOLVED (TONS PER DAY)	
NOV 01...	44	1	4.4	279	60	5.9	0.5	25	390	0.53	190
22...	49	1	3.9	304	67	5.6	0.4	24	415	0.56	157
JAN 29...	48	1	3.7	297	71	6.1	0.5	28	421	0.57	197
MAR 04...	55	1	3.7	301	84	6.8	0.5	25	446	0.61	120
APR 04...	36	1	3.4	225	56	5.4	0.3	16	321	0.44	175
MAY 14...	11	0.5	1.5	109	13	1.2	0.2	13	138	0.19	297
JUN 04...	30	1	3.1	211	41	3.3	0.3	19	285	0.39	155
26...	43	1	4.6	272	55	4.4	0.5	24	374	0.51	116
JUL 10...	51	1	5.6	306	62	5.3	0.6	26	417	0.57	90.4
AUG 12...	56	1	5.9	316	67	5.6	0.6	26	434	0.59	80.0
SEP 24...	42	1	4.4	292	55	4.9	0.5	28	394	0.54	148

K-Based on non-ideal colony count.

## PLATEAU CREEK BASIN

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**09105000 PLATEAU CREEK NEAR CAMEO, CO--Continued**

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## PLATEAU CREEK BASIN

## 09105000 PLATEAU CREEK NEAR CAMEO, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	667	650	656	671	644	653	650	605	623	412	364	386
2	668	651	662	700	671	687	609	493	525	384	344	361
3	---	---	---	725	700	712	517	504	510	365	332	347
4	718	659	693	706	689	698	522	511	516	347	317	331
5	676	636	654	695	679	688	533	517	521	335	290	309
6	661	617	652	683	665	672	543	518	531	314	276	293
7	664	617	652	712	663	691	511	491	511	306	276	290
8	668	605	653	731	663	690	510	456	476	302	280	291
9	677	606	652	715	673	689	475	409	434	300	270	283
10	672	616	653	700	675	685	438	355	385	303	288	295
11	675	616	652	686	668	678	387	358	370	310	290	298
12	671	654	663	683	661	672	425	377	404	303	270	283
13	669	651	663	666	654	660	457	414	429	286	244	261
14	669	636	657	667	648	657	479	457	468	276	229	247
15	660	624	646	682	667	677	510	479	487	267	215	238
16	663	616	641	687	662	675	514	483	492	267	189	219
17	661	640	652	672	648	659	495	463	478	212	171	190
18	660	631	645	673	652	662	489	466	474	211	166	189
19	662	637	651	702	673	683	503	477	486	210	167	188
20	665	569	640	710	657	679	519	496	502	230	172	199
21	569	502	537	700	657	672	531	513	521	275	230	256
22	597	561	578	681	640	659	540	523	530	275	245	263
23	638	597	613	649	605	626	549	523	534	269	231	255
24	656	638	645	626	608	615	543	458	502	289	259	274
25	672	656	661	665	626	644	465	365	404	329	289	307
26	681	672	677	673	651	663	383	341	361	351	328	340
27	681	667	676	706	651	672	374	340	355	373	351	361
28	667	659	663	704	661	673	361	319	339	409	373	391
29	663	650	657	688	659	672	405	350	375	416	404	411
30	---	---	---	660	639	649	409	392	399	433	415	423
31	---	---	---	652	631	643	---	---	---	435	414	427
MONTH	---	---	---	731	605	670	650	319	465	435	166	297
	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	451	435	447	638	618	626	696	650	671	639	605	625
2	464	446	455	649	619	637	705	656	677	644	608	626
3	462	448	455	664	586	631	698	640	671	672	640	658
4	470	449	459	634	596	610	750	654	687	640	613	627
5	459	444	453	649	606	636	701	652	675	645	620	636
6	451	439	444	646	616	633	683	646	662	665	637	649
7	451	437	445	669	630	644	685	645	664	667	633	652
8	472	451	467	677	638	655	703	657	677	634	626	629
9	493	472	487	685	641	661	693	652	671	643	626	634
10	499	491	495	704	647	676	693	645	668	649	632	640
11	515	493	509	704	620	676	690	646	672	641	630	636
12	531	515	524	712	673	692	712	665	685	635	627	630
13	537	526	532	714	679	694	710	665	686	640	626	632
14	545	533	541	699	671	685	711	664	688	634	619	625
15	560	544	551	712	681	696	700	666	684	622	611	617
16	560	532	549	729	666	701	716	658	689	626	608	617
17	547	532	542	803	683	734	698	648	676	637	605	624
18	555	542	550	731	685	714	680	642	661	656	574	621
19	554	542	548	707	672	689	677	644	661	633	616	624
20	562	545	551	695	653	676	675	648	661	640	624	633
21	566	556	562	691	662	678	688	630	664	644	626	637
22	566	553	560	698	666	680	682	631	658	647	626	639
23	559	549	554	710	668	688	671	625	652	648	626	637
24	569	549	557	710	670	691	672	625	652	651	614	633
25	569	548	556	717	678	697	672	633	655	639	612	627
26	591	562	573	719	680	696	671	632	652	635	617	626
27	601	565	580	725	672	697	678	627	654	638	627	632
28	596	588	592	721	674	699	660	619	642	651	614	634
29	625	595	611	725	658	692	655	614	636	659	632	646
30	626	599	619	719	648	684	643	611	628	664	642	652
31	---	---	---	699	648	672	641	606	625	---	---	---
MONTH	626	435	526	803	586	675	750	606	665	672	574	633

## 09105000 PLATEAU CREEK NEAR CAMEO, CO--Continued

TEMPERATURE, WATER (DEG. C) WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	13.8	9.2	11.7	10.3	8.5	9.4	4.0	1.4	2.9	.0	.0	.0
2	13.4	8.8	11.4	9.4	4.7	6.4	4.1	1.4	2.9	.0	.0	.0
3	13.1	8.4	11.1	5.1	1.6	3.7	3.9	1.8	3.0	.0	.0	.0
4	12.4	9.7	10.6	5.3	2.1	3.8	5.3	2.5	3.7	.0	.0	.0
5	10.8	8.0	9.3	5.4	1.2	3.6	7.6	5.1	6.2	.0	.0	.0
6	10.3	5.5	8.1	6.0	3.3	4.8	6.9	4.5	5.5	.0	.0	.0
7	11.1	6.0	8.8	8.2	4.9	6.3	5.1	2.8	3.5	.0	.0	.0
8	11.8	7.5	9.9	7.0	3.9	5.7	4.1	2.8	3.4	.0	.0	.0
9	11.5	6.7	9.3	7.1	4.2	5.8	3.6	1.2	2.5	.0	.0	.0
10	12.5	7.9	10.4	7.0	4.2	5.9	3.0	1.1	2.1	.0	.0	.0
11	12.8	7.7	10.5	4.5	1.2	3.1	3.8	1.2	2.4	.0	.0	.0
12	13.0	9.4	11.2	5.3	2.2	3.8	4.6	3.1	3.8	.0	.0	.0
13	12.3	8.2	10.3	6.5	3.5	5.2	6.0	4.6	5.2	.0	.0	.0
14	10.3	5.4	8.2	7.1	3.7	5.6	5.1	3.7	4.5	.0	.0	.0
15	11.2	6.0	8.8	7.0	3.8	5.6	3.7	.4	1.8	.0	.0	.0
16	11.0	6.8	9.2	6.6	3.5	5.3	2.6	.9	1.9	.3	.0	.0
17	11.4	6.7	9.3	6.5	3.5	5.3	2.6	.5	1.5	2.2	.0	1.4
18	11.3	6.8	9.3	5.9	2.8	4.5	1.6	.0	.4	.0	.0	.0
19	10.5	6.8	9.0	5.5	2.6	4.2	.6	.0	.0	.0	.0	.0
20	9.1	4.2	6.9	5.5	---	4.2	.0	.0	.0	.0	.0	.0
21	9.4	4.5	7.0	---	---	---	.0	.0	.0	.0	.0	.0
22	9.1	5.3	7.4	---	---	---	.0	.0	.0	1.0	.0	.0
23	6.9	3.0	5.0	---	---	---	.0	.0	.0	.7	.0	.0
24	7.1	2.9	5.2	---	---	---	.0	.0	.0	.1	.0	.0
25	7.7	3.5	5.7	---	---	---	.0	.0	.0	.8	.0	.3
26	9.1	5.0	6.9	---	---	---	.0	.0	.0	.5	.0	.0
27	9.4	5.8	7.8	---	---	---	.0	.0	.0	.0	.0	.0
28	8.6	4.8	6.9	---	---	---	.0	.0	.0	.0	.0	.0
29	9.1	5.3	7.1	4.1	1.8	2.8	.0	.0	.0	.0	.0	.0
30	10.8	7.3	8.9	3.9	1.4	2.8	.0	.0	.0	2.6	.0	1.1
31	10.0	6.7	8.5	---	---	---	.0	.0	.0	3.3	2.2	2.7
MONTH	13.8	2.9	8.7	---	---	---	7.6	.0	1.8	3.3	.0	.2
	FEBRUARY			MARCH			APRIL			MAY		
1	3.3	1.4	2.4	4.5	.0	1.9	12.1	5.6	9.2	12.2	8.1	10.5
2	2.2	.0	.8	5.4	.0	2.6	10.5	5.7	7.7	12.4	8.0	10.2
3	.6	.0	.0	6.1	.3	3.4	11.5	5.7	8.4	12.9	7.6	10.3
4	.0	.0	.0	6.4	2.8	4.7	10.2	6.1	8.4	13.0	7.2	10.3
5	2.9	.0	.5	7.5	4.2	5.6	11.0	5.1	8.0	13.3	8.0	10.8
6	4.5	1.9	3.1	5.8	2.7	4.4	11.6	5.0	8.6	12.6	8.4	10.7
7	4.5	1.4	3.1	4.5	.7	3.0	12.1	6.6	9.4	12.4	8.7	10.7
8	4.8	1.2	3.0	7.2	1.1	4.2	13.1	7.1	10.3	14.4	8.5	11.4
9	4.7	.9	2.9	8.0	2.3	5.5	12.4	6.8	10.1	13.3	9.7	11.2
10	4.8	2.0	3.4	7.9	3.4	6.1	11.8	6.2	8.2	13.7	7.7	10.6
11	3.9	1.1	2.7	9.3	3.5	6.7	8.1	6.3	7.2	14.9	8.5	11.9
12	3.4	.0	2.0	10.0	5.8	7.8	8.6	4.2	6.4	15.8	9.9	13.1
13	3.7	.0	1.7	8.3	5.8	6.8	8.0	4.6	5.9	15.8	10.4	13.3
14	4.6	.0	2.4	6.5	4.6	5.6	9.3	3.4	6.0	15.0	10.0	12.9
15	5.5	1.0	3.4	9.5	3.1	6.4	10.8	3.9	7.5	15.6	9.0	12.6
16	4.9	1.1	3.4	10.2	4.5	7.6	11.6	6.2	9.2	15.2	9.7	12.9
17	5.9	1.3	3.8	8.7	5.6	7.1	11.2	7.5	8.9	14.8	9.6	12.1
18	5.9	3.5	4.9	7.5	2.3	5.1	8.3	4.7	6.8	13.4	8.4	11.2
19	5.3	2.6	4.1	8.4	1.4	5.1	9.8	3.3	6.5	14.6	8.7	11.4
20	7.7	4.1	5.7	9.3	2.2	6.0	8.6	3.8	5.4	14.2	8.7	11.4
21	5.7	2.6	3.3	10.6	3.9	7.5	10.7	3.9	7.2	14.9	8.7	11.9
22	4.0	2.7	3.4	10.5	5.1	8.3	11.6	4.9	8.5	15.0	9.8	12.7
23	4.4	.0	2.1	9.7	6.2	7.6	14.1	6.9	10.5	14.4	10.4	12.5
24	4.6	.0	2.3	7.3	3.1	5.3	14.1	8.7	11.8	12.9	8.9	10.7
25	4.9	1.2	3.1	6.5	2.5	4.4	13.5	10.0	11.9	11.9	10.2	10.9
26	4.9	2.1	3.1	9.0	1.4	5.1	11.9	7.0	9.7	12.1	9.3	10.6
27	3.2	.0	1.7	8.5	2.8	6.1	12.6	8.7	10.6	15.7	9.5	12.2
28	4.0	.0	1.7	10.4	4.6	7.6	10.2	5.7	7.0	14.5	11.3	12.8
29	3.6	.0	1.7	10.8	5.9	8.5	9.6	2.1	5.8	17.4	10.1	13.7
30	---	---	---	11.4	5.8	8.7	12.7	5.9	9.3	16.7	13.0	14.4
31	---	---	---	12.1	6.2	9.2	---	---	---	17.5	10.8	14.1
MONTH	7.7	.0	2.6	12.1	.0	5.9	14.1	2.1	8.3	17.5	7.2	11.8

## PLATEAU CREEK BASIN

**09105000 PLATEAU CREEK NEAR CAMEO, CO--Continued**

TEMPERATURE, WATER (DEG. C) WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	18.9	12.6	15.8	24.5	16.4	20.4	25.4	18.2	21.8	21.1	15.2	18.4
2	19.5	12.4	16.1	25.0	17.5	21.4	23.8	18.7	21.3	23.0	16.8	19.9
3	20.5	13.1	17.0	25.9	18.1	22.1	23.1	17.9	20.6	22.6	15.9	19.4
4	20.5	14.2	17.8	26.2	19.5	22.9	22.6	17.7	19.9	22.6	15.8	19.2
5	20.4	15.1	18.1	24.0	19.4	21.9	22.9	15.3	19.2	19.7	16.7	17.9
6	21.3	14.7	18.1	25.9	18.6	22.1	23.5	16.3	19.9	17.6	15.4	16.3
7	21.7	14.4	18.2	24.1	18.4	21.6	24.3	17.0	20.6	20.2	13.2	16.6
8	20.7	15.1	18.4	22.7	19.0	21.0	24.4	17.2	20.8	20.2	13.3	16.9
9	22.4	15.2	18.9	23.1	18.6	20.6	24.2	17.9	20.9	20.6	13.5	17.2
10	22.1	15.9	19.2	25.6	18.1	21.7	24.5	16.9	20.7	20.4	13.9	17.4
11	20.2	15.6	18.1	24.7	18.5	21.9	24.5	16.6	20.6	19.0	15.9	17.3
12	21.6	15.1	18.2	22.6	17.4	20.1	24.5	16.8	21.1	19.1	14.8	16.9
13	19.8	15.7	18.0	24.9	17.8	21.0	24.2	16.9	20.7	18.3	14.2	16.2
14	17.8	15.3	16.8	25.6	17.3	21.4	24.2	17.5	20.7	17.3	14.4	15.9
15	17.4	15.2	16.2	23.1	18.2	20.5	23.7	18.1	20.8	19.6	13.6	16.3
16	20.7	13.1	17.0	25.1	17.6	21.1	24.5	16.7	20.5	17.7	13.1	15.5
17	21.5	14.9	18.3	22.8	18.8	21.0	23.7	16.8	20.3	15.2	11.7	13.5
18	21.7	14.2	18.1	25.9	19.1	22.3	24.2	18.8	21.2	12.9	8.7	10.1
19	21.8	14.4	18.3	25.2	19.1	22.4	24.0	17.8	20.8	13.2	8.4	10.7
20	19.5	14.8	17.5	25.8	18.7	22.1	22.4	17.9	20.1	15.3	10.0	12.7
21	20.7	15.0	17.8	25.7	17.7	21.7	23.4	17.8	20.6	15.4	9.5	12.8
22	21.5	15.8	18.7	25.5	17.8	21.7	23.3	17.5	20.5	16.0	10.8	13.6
23	21.8	14.1	18.1	25.3	17.3	21.3	24.2	16.6	20.3	16.8	11.5	14.4
24	21.7	14.9	18.5	25.1	17.4	21.3	23.6	17.7	20.8	17.8	12.6	15.2
25	21.0	14.7	18.1	23.1	17.3	20.4	22.8	18.0	20.3	16.2	12.2	13.5
26	20.6	16.4	18.9	23.5	17.1	20.6	22.9	17.9	20.0	12.7	9.3	11.2
27	19.3	16.8	18.1	24.8	17.5	21.3	24.8	18.0	21.1	12.2	7.0	9.8
28	18.1	14.7	16.5	23.9	19.1	21.5	23.9	18.1	21.1	12.7	6.9	10.0
29	22.9	14.1	18.3	24.9	18.7	21.7	23.2	17.0	20.2	14.3	8.3	11.4
30	21.3	16.2	19.3	26.1	18.9	22.4	22.3	15.7	19.1	14.9	9.2	12.3
31	---	---	---	24.9	18.3	21.8	21.9	15.5	18.8	---	---	---
MONTH	22.9	12.4	17.9	26.2	16.4	21.5	25.4	15.3	20.5	23.0	6.9	14.9

**09106150 COLORADO RIVER BELOW GRAND VALLEY DIVERSION, NEAR PALISADE, CO**

LOCATION.--Lat 39°05'55", long 108°21'16", in NW<sup>1/4</sup>SE<sup>1/4</sup> sec.18, T.1 S., R.2 E., Mesa County, Hydrologic Unit 14010005, on right bank 0.25 mile downstream of intake structure for Grand Valley Diversion Canal, and 0.25 mile south of Palisade.

DRAINAGE AREA.--8,753 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--October 1990 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 4,670 ft above sea level, from topographic map.

REMARKS.-- Records fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, and diversion for irrigation of about 230,000 acres.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2030	1690	2480	2320	2470	2130	3760	5020	8380	9260	1540	693
2	1750	1880	2470	2110	2140	2170	3800	5180	8600	8400	1440	658
3	1570	1810	2460	2090	1960	2240	4130	5400	9150	7520	1360	655
4	1530	1750	2210	2030	1830	2230	e4470	5350	10700	7090	1350	625
5	1570	1770	2120	2200	1960	2280	e4380	5850	11400	6590	1380	623
6	1570	2070	2120	2110	2200	2410	e4420	7120	12600	6360	1280	671
7	1580	2340	2120	1940	2350	2280	e4470	8040	13100	6190	1130	740
8	1570	2410	2100	1970	2290	2380	e4450	9110	13100	6120	1040	794
9	1540	2500	2050	2020	2320	2180	4770	10100	13000	5870	956	729
10	1510	2870	2020	2120	2300	2220	5520	10300	12800	5200	861	708
11	1470	2730	2030	2110	2280	2280	6120	10300	12500	4680	806	695
12	1440	2510	2040	2040	2160	2380	6130	10900	12300	4230	802	703
13	1460	2530	2290	2040	2100	2540	5740	12600	12300	3860	736	851
14	1550	2560	2540	2030	2090	2610	5310	14300	12200	3610	664	1110
15	1580	2560	2560	2000	2170	2420	4780	15200	12500	3360	558	1240
16	1540	2580	2470	2000	2220	2720	4470	16300	13500	3270	610	1280
17	1490	2580	2510	2300	2190	2950	4480	18400	12700	3170	712	1450
18	1460	2520	2550	2210	2220	3040	4690	20100	12700	3300	693	1630
19	1440	2550	2380	2020	2360	2960	4830	19900	13200	3250	694	1480
20	1350	2530	2290	2050	2360	2920	4540	20300	13000	3180	682	1490
21	1230	2300	2250	2080	3510	3030	4220	18700	13900	2970	666	1390
22	1230	2490	2210	2080	4800	3160	4050	16100	16000	2790	623	1340
23	1340	2460	2060	2120	3560	3480	3850	14600	16500	2590	600	1330
24	1290	2460	1970	2110	2710	3760	3810	13500	15000	2250	661	1350
25	1200	2460	1850	2130	2450	3470	4520	12000	13800	1960	725	1380
26	1220	2460	1880	2050	2380	3220	5850	11900	12200	1860	815	1410
27	1310	2490	1920	1910	2300	3140	6060	11700	11600	1720	812	1430
28	1260	2460	1900	1920	2230	3220	6360	10700	11500	1570	780	1410
29	1480	2390	1980	2130	2160	3330	5880	9860	10700	1560	723	1360
30	1660	2470	2110	2240	---	3550	5260	9130	9790	1770	727	1330
31	1570	---	2200	2410	---	3700	---	8530	---	1720	731	---
TOTAL	45790	71180	68140	64890	70070	86400	145120	366490	370720	127270	27157	32555
MEAN	1477	2373	2198	2093	2416	2787	4837	11820	12360	4105	876	1085
MAX	2030	2870	2560	2410	4800	3760	6360	20300	16500	9260	1540	1630
MIN	1200	1690	1850	1910	1830	2130	3760	5020	8380	1560	558	623
AC-FT	90820	141200	135200	128700	139000	171400	287800	726900	735300	252400	53870	64570

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1996, BY WATER YEAR (WY)

MEAN	936	1750	1611	1571	1684	1941	2177	7655	10740	5154	1456	1024
MAX	1477	2373	2198	2093	2416	2787	4837	11820	12360	4105	876	1085
(WY)	1996	1996	1996	1996	1996	1996	1996	1993	1995	1995	1995	1995
MIN	538	1220	1209	1280	1297	1302	962	4603	3164	745	557	650
(WY)	1991	1995	1991	1991	1991	1991	1995	1992	1992	1994	1994	1994

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1991 - 1996
ANNUAL TOTAL	1779390	1475782	
ANNUAL MEAN	4875	4032	3144
HIGHEST ANNUAL MEAN			4664
LOWEST ANNUAL MEAN			1764
HIGHEST DAILY MEAN	29600	Jun 17	29600
LOWEST DAILY MEAN	713	Apr 24	342
ANNUAL SEVEN-DAY MINIMUM	771	Apr 22	443
INSTANTANEOUS PEAK FLOW		21500	30600
INSTANTANEOUS PEAK STAGE		10.28	12.41
ANNUAL RUNOFF (AC-FT)	3529000	2927000	2278000
10 PERCENT EXCEEDS	17400	11600	7630
50 PERCENT EXCEEDS	1910	2300	1590
90 PERCENT EXCEEDS	1190	1010	721

e-Estimated.

## COLORADO RIVER MAIN STEM

**09106150 COLORADO RIVER BELOW GRAND VALLEY DIVERSION, NEAR PALISADE, CO--Continued**  
**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--October 1993 to September 1996 (discontinued).

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET DUCT- ANCE PER SECOND	SPE-CIFIC CON- DUCT- ANCE (US/CM)	pH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL 0.7 (COLS./ 100 ML)	E. COLI WATER WHOLE NESS TOTAL UREASE (COL / 100 ML)	HARD- NESS TOTAL TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CACO3)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	
OCT 31...	1515	1370		925	8.5	10.0	11.4	K10	K7	230	64	17
JAN 29...	1030	2080		1020	8.2	0.5	12.4	--	--	240	65	18
APR 04...	1100	4520		580	8.2	10.0	8.9	K51	K35	170	47	12
MAY 14...	0815	13600		313	8.1	11.5	9.2	--	--	110	31	7.0
JUN 05...	1200	11100		330	8.1	14.0	9.0	80	K35	110	32	6.9
AUG 13...	0925	790		925	8.6	21.0	8.1	120	120	220	65	15
<hr/>												
DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB SOLVED (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS F)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)		
OCT 31...	90	3	3.1	150	120	120	0.3	9.3	514	0.70	1900	
JAN 29...	100	3	3.6	145	130	150	0.3	11	565	0.77	3170	
APR 04...	52	2	2.7	113	82	62	0.3	9.1	335	0.46	4090	
MAY 14...	18	0.8	1.3	88	37	19	0.2	8.7	175	0.24	6420	
JUN 05...	21	0.9	1.2	85	36	25	0.2	7.9	181	0.25	5430	
AUG 13...	97	3	4.1	137	120	140	0.3	8.5	532	0.72	1130	
<hr/>												
DATE	CADMIUM DIS- SOLVED (UG/L AS CD)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)		
OCT 31...	<1	<1	160	<1	10	10	<0.1	<1	<0.2	<10		
APR 04...	<1	<1	3700	<1	190	12	<0.1	<1	<0.2	<3		
JUN 05...	<1	<1	30	<1	<10	3	<0.1	<1	<0.2	14		
AUG 13...	<1	1	380	1	50	58	<0.1	<1	<0.2	6		

K-Based on non-ideal colony count.

## MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET DUCT- ANCE PER SECOND	SPE-CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET DUCT- ANCE PER SECOND	SPE-CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)		
OCT 03...	1454	1560		878	14.0						
NOV 21...	1413	2230		908	5.5	APR 25...	1130	4510	572	12.0	
						JUL 29...	1300	1660	760	21.5	

## 09107000 TAYLOR RIVER AT TAYLOR PARK, CO

LOCATION.--Lat 38°51'37", long 108°33'58", in NW<sup>1/4</sup>NE<sup>1/4</sup> sec.5, T.14 S., R.82 W., Gunnison County, Hydrologic Unit 14020001, on left bank 0.2 mi upstream from Taylor Park Reservoir waterline, 2.7 mi north of Taylor Park, and 21 mi northeast of Almont.

DRAINAGE AREA.--128 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1929 to September 1934, October 1987 to current year. Records for 1929-1934 provided by Colorado Division of Water Resources, published in WSP 1313. Statistical summary computed for 1988 to current year.

REVISED RECORDS.--WSP 1313: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 9,340 ft above sea level, from topographic map. June 1929 to September 1934 water-stage recorder at different datum at site flooded by waters of Taylor Park Reservoir since 1937.

REMARKS.--Records good except for estimated daily discharges, which are poor. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	113	82	70	e44	29	e26	37	e190	299	290	99	52
2	107	76	69	e43	31	e28	42	e225	341	278	92	52
3	104	66	67	e41	e34	e29	45	e240	408	264	111	51
4	103	77	68	e39	e33	e30	42	e275	485	253	112	51
5	104	67	65	e37	33	30	43	e315	533	261	94	53
6	101	73	65	e38	33	31	44	e300	598	251	86	69
7	108	76	64	e40	34	33	51	e340	588	236	81	74
8	108	74	64	e39	32	35	68	e375	566	228	80	59
9	99	74	63	e39	32	33	90	e430	558	238	81	56
10	98	68	61	e39	29	33	e112	e470	534	222	76	54
11	95	67	65	e37	e28	32	e125	e480	520	208	71	53
12	94	81	60	e37	e28	31	e140	e610	521	198	67	56
13	104	77	59	e36	e28	31	e145	e580	514	193	65	83
14	92	77	57	e35	30	31	e135	e570	536	186	65	73
15	92	79	56	e35	27	31	e135	e590	662	182	65	70
16	89	78	e58	e36	28	31	e130	e640	522	181	63	64
17	88	75	e54	e36	29	32	e140	e680	494	166	61	62
18	86	74	e49	e34	27	33	e135	e650	472	168	64	64
19	84	71	e46	e32	27	35	e130	e590	442	163	74	68
20	79	74	e47	e33	28	36	e125	e640	419	141	65	69
21	83	68	e48	e31	27	35	e115	e630	552	130	62	63
22	87	68	e45	e32	26	33	e110	e620	649	122	62	61
23	74	67	e41	e32	e26	35	e125	610	490	115	69	68
24	77	65	e38	e33	e26	34	e160	488	399	111	68	65
25	80	67	e39	e31	e26	34	e185	430	368	111	64	61
26	83	66	e40	e29	e25	35	e200	402	357	108	63	60
27	80	63	e40	e31	e25	35	e210	342	375	106	68	61
28	76	61	e40	e29	e25	35	e200	312	391	107	65	62
29	79	68	e42	e28	e25	35	e185	271	339	138	60	62
30	82	70	e44	e27	---	35	e180	274	308	115	56	58
31	80	---	e45	e27	---	35	---	276	---	104	53	---
TOTAL	2829	2149	1669	1080	831	1012	3584	13845	14240	5574	2262	1854
MEAN	91.3	71.6	53.8	34.8	28.7	32.6	119	447	475	180	73.0	61.8
MAX	113	82	70	44	34	36	210	680	662	290	112	83
MIN	74	61	38	27	25	26	37	190	299	104	53	51
AC-FT	5610	4260	3310	2140	1650	2010	7110	27460	28250	11060	4490	3680

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1996, BY WATER YEAR (WY)

MEAN	56.3	46.2	39.8	34.3	33.0	37.4	76.2	258	414	206	88.9	64.2
MAX	91.3	71.6	53.8	39.0	38.2	47.0	119	447	475	719	236	122
(WY)	1996	1996	1996	1988	1995	1988	1996	1996	1995	1995	1995	1995
MIN	39.6	34.5	30.0	28.6	27.9	32.6	39.4	162	195	88.4	53.4	46.5
(WY)	1989	1989	1989	1990	1994	1996	1995	1990	1992	1994	1994	1990

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1988 - 1996
ANNUAL TOTAL	73638	50929	
ANNUAL MEAN	202	139	113
HIGHEST ANNUAL MEAN			197
LOWEST ANNUAL MEAN			79.4
HIGHEST DAILY MEAN	1120	Jun 17	1120
LOWEST DAILY MEAN	e27	Jan 3	Jun 17 1995
ANNUAL SEVEN-DAY MINIMUM	32	Mar 8	b24 Feb 7 1989
INSTANTANEOUS PEAK FLOW			25 Feb 23 1996
INSTANTANEOUS PEAK STAGE			1400 Jun 18 1995
ANNUAL RUNOFF (AC-FT)	146100	101000	4.08 Jun 18 1995
10 PERCENT EXCEEDS	721	422	81870
50 PERCENT EXCEEDS	76	68	288
90 PERCENT EXCEEDS	35	31	52
			33

e-Estimated.

a-Also occurred Feb 27-29.

b-Minimum daily discharge for period of record, 23 ft<sup>3</sup>/s, Jan 1-19, 1931.

c-May have been higher during period of no gage-height record, Apr 10 to May 22.

**09108500 TAYLOR PARK RESERVOIR AT TAYLOR PARK, CO**

LOCATION.--Lat 38°49'07", long 106°36'24", Gunnison County, Hydrologic Unit 14020001, at dam on Taylor River just downstream from Taylor Park, and 16 mi northeast of Almont.

DRAINAGE AREA.--254 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1937 to current year. Prior to October 1938, published in WSP 1313.

REVISED RECORDS.--WSP 1089: 1940(M), 1942(M), 1945-46. WSP 1924: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry, and nonrecording gage (read once daily). Datum of gage is 9,187 ft above sea level, (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above sea level.

REMARKS.--Reservoir is formed by an earth and rockfill dam. Dam completed by U.S. Bureau of Reclamation in September 1937. Capacity of reservoir, 106,200 acre-ft between elevations 9,187 ft, bottom of outlet gates, and 9,330 ft, crest of spillway. No dead storage. Water used for irrigation in Uncompahgre Valley. Figures given are usable contents.

COOPERATION.--Records provided by Uncompahgre Valley Water Users Association.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 111,000 acre-ft, July 1, 1957, elevation, 9,332.35 ft; minimum after first filling, 8,780 acre-ft, Oct. 19-20, 1956, elevation, 9,240.70 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 106,100 acre-ft, June 15, elevation, 9,329.96 ft; minimum contents, 62,000 acre-ft, Sept. 30, elevation, 9,304.86 ft.

## MONTHEND ELEVATION AND CONTENTS, AT 1800, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30. . . . .	9,316.80	81,230	-16,060
Oct. 31. . . . .	9,311.20	71,800	-9,430
Nov. 30. . . . .	9,312.40	73,800	+2,000
Dec. 31. . . . .	9,312.49	73,900	+100
CAL YR 1995. . . . .	-	-	
Jan. 31. . . . .	9,312.23	73,500	-400
Feb. 29. . . . .	9,311.58	72,400	-1,100
Mar. 31. . . . .	9,310.65	70,900	-1,500
Apr. 30. . . . .	9,310.08	70,000	-900
May 31. . . . .	9,322.80	92,100	+22,100
June 30. . . . .	9,327.98	102,200	+10,100
July 31. . . . .	9,322.50	91,600	-10,600
Aug. 31. . . . .	9,313.49	75,600	-16,000
Sept. 30. . . . .	9,304.86	62,000	-13,600
WTR YR 1996. . . . .	-	-	-19,230

**09109000 TAYLOR RIVER BELOW TAYLOR PARK RESERVOIR, CO**

LOCATION.--Lat 38°49'06", long 106°36'31", Gunnison County, Hydrologic Unit 14020001, on bridge 1,000 ft downstream from Taylor Park Reservoir Dam, 3.4 mi upstream from Lottis Creek, and 17 mi northeast of Almont.

DRAINAGE AREA.--254 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1929 to September 1934 (monthly discharges only, published in WSP 1313), October 1938 to current year. Statistical summary computed for 1939 to current year.

REVISED RECORDS.--WSP 1924: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 9,169.67 ft above sea level, (levels by U.S. Bureau of Reclamation). Prior to Nov. 11, 1952, at site 1,600 ft downstream, at datum 1.00 ft, lower. Oct. 15, 1946 to May 4, 1952, supplementary nonrecording gage just downstream from reservoir outlet at different sites and datums used during winter months.

REMARKS.--Records good. Flow regulated by Taylor Park Reservoir (station 09108500) since 1937. One small diversion for irrigation from Willow Creek upstream from reservoir. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	441	138	90	89	100	104	105	413	366	655	455	361
2	418	138	89	87	102	106	105	413	366	588	457	359
3	395	119	89	88	102	106	104	414	366	542	456	358
4	396	106	89	89	100	106	103	414	368	517	454	358
5	395	105	e89	89	104	106	104	415	367	519	454	359
6	394	101	e89	87	104	106	106	414	404	518	454	358
7	394	95	88	87	104	106	117	417	460	519	452	359
8	394	94	88	89	104	108	110	451	475	521	451	355
9	393	93	88	90	104	106	133	471	477	520	451	354
10	394	92	88	93	104	106	147	472	478	519	451	355
11	394	92	88	94	104	106	152	470	480	521	445	359
12	393	92	89	94	103	106	151	471	476	520	444	359
13	394	92	91	95	103	106	151	473	495	518	443	360
14	392	91	91	97	103	106	152	473	563	517	443	360
15	392	91	91	97	104	106	151	475	710	500	443	360
16	369	91	91	97	104	106	152	475	1230	477	442	361
17	320	91	92	97	104	105	153	453	1290	465	441	360
18	273	91	91	97	104	104	153	422	1070	465	441	361
19	226	91	89	97	104	105	153	424	961	465	440	360
20	177	91	89	97	104	105	152	425	899	466	441	360
21	145	91	89	96	104	104	152	400	904	460	443	360
22	146	91	89	98	104	104	193	362	906	463	442	359
23	144	91	89	103	104	106	251	363	905	462	441	359
24	144	91	89	104	104	105	255	364	905	460	441	361
25	144	91	89	103	104	105	257	364	908	459	440	364
26	142	91	89	102	104	104	257	365	859	459	389	363
27	141	91	89	98	104	105	279	366	778	458	363	315
28	138	91	89	103	104	106	332	365	722	459	365	279
29	138	91	89	104	104	106	390	366	722	459	362	276
30	139	91	89	104	---	106	414	366	721	457	361	276
31	138	---	89	103	---	106	---	365	---	457	359	---
TOTAL	8903	2904	2768	2968	3001	3272	5423	12901	20631	15385	13364	10488
MEAN	287	96.8	89.3	95.7	103	106	181	416	688	496	431	350
MAX	441	138	92	104	104	108	414	475	1290	655	457	364
MIN	138	91	88	87	100	104	103	362	366	457	359	276
AC-FT	17660	5760	5490	5890	5950	6490	10760	25590	40920	30520	26510	20800

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1996, BY WATER YEAR (WY)

MEAN	192	95.8	73.5	61.7	60.0	86.1	151	180	328	399	365	405
MAX	586	438	353	195	196	320	655	550	931	1249	646	809
(WY)	1969	1968	1966	1966	1971	1986	1970	1962	1948	1957	1950	1956
MIN	11.4	10.0	6.00	4.02	4.00	4.19	9.44	.000	.000	147	183	99.5

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1939 - 1996
ANNUAL TOTAL	127230	102008	
ANNUAL MEAN	349	279	
HIGHEST ANNUAL MEAN			200
LOWEST ANNUAL MEAN			341
HIGHEST DAILY MEAN			1995
LOWEST DAILY MEAN			94.8
ANNUAL SEVEN-DAY MINIMUM			1941
INSTANTANEOUS PEAK FLOW			
INSTANTANEOUS PEAK STAGE			
ANNUAL RUNOFF (AC-FT)	252400	202300	2180
10 PERCENT EXCEEDS	673	477	Jul 1 1957
50 PERCENT EXCEEDS	216	153	C 00 May 1 1940
90 PERCENT EXCEEDS	91	91	.00 May 1 1940
			2270 Jul 1 1957
			7.56 Jul 1 1957
			145100 488
			107
			15

e-Estimated.

a-Also occurred Dec 8-11.

b-Also occurred Jan 6-7.

c-Also occurred May 2 to Jul 3, 1940, May 7-22, 1942, May 5-21, 1943.

## GUNNISON RIVER BASIN

**09110000 TAYLOR RIVER AT ALMONT, CO**

LOCATION.--Lat 38°39'52", long 106°50'41", in NW<sup>1</sup>/4 SE<sup>1</sup>/4 sec.22, T.51 N., R.1 E., Gunnison County, Hydrologic Unit 14020001, on left bank at Almont, 15 ft downstream from bridge on State Highway 306, and 800 ft upstream from confluence with East River.

DRAINAGE AREA.--477 mi<sup>2</sup>.

## **WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--July 1910 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1213: 1911. WSP 1924: Drainage area.

GAGE--Water-stage recorder with satellite telemetry. Datum of gage is 8,010.76 ft above sea level. Prior to Apr. 16, 1922, nonrecording gage at same site and datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow partly regulated since September 1937 by Taylor Park Reservoir (station 09108500), 24 mi upstream from station. Diversions for irrigation of about 360 acres upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	560	211	156	e130	e118	e127	160	657	816	876	479	418
2	541	209	165	e130	e118	e127	173	674	829	794	476	412
3	501	197	158	e129	e119	e130	179	745	868	724	479	403
4	501	176	147	e128	e120	e132	178	791	888	695	490	402
5	501	172	e140	e128	e120	e136	173	879	938	691	483	404
6	493	173	e140	e128	e120	e132	174	919	1000	689	472	406
7	487	167	e140	e130	e119	e127	183	938	1050	678	468	409
8	477	155	e142	e130	e119	e129	198	996	1060	668	469	407
9	477	152	e142	e130	e119	e138	264	1030	1070	671	474	401
10	477	155	e142	e130	e119	e148	309	1010	1040	652	469	397
11	477	151	e141	e130	e118	151	319	e1140	1010	639	464	397
12	477	159	e140	e130	e118	151	303	e1250	1010	628	462	400
13	477	157	e140	e130	e120	148	302	e1410	1020	619	461	398
14	476	157	e141	e130	e122	148	280	e1480	1070	609	463	400
15	470	153	e144	e131	e126	148	274	e1480	1190	591	458	406
16	451	151	e140	e132	e125	148	272	e1520	1710	540	457	398
17	401	148	e136	e130	e128	148	275	e1680	1890	496	451	394
18	350	143	e130	e125	e130	149	271	e1650	1600	e490	452	395
19	303	142	e130	e125	e135	163	263	e1620	1400	e485	457	395
20	263	145	e130	e127	e168	171	254	e1510	1300	e480	453	391
21	219	145	e130	e127	e150	156	250	e1430	1340	e480	450	391
22	215	145	e128	e127	e130	154	263	1280	1370	e480	443	392
23	215	142	e130	e125	e125	155	341	1220	1300	e480	446	396
24	214	136	e130	e124	e123	158	389	1130	1250	e475	443	395
25	215	136	e129	e122	e125	156	486	1060	1230	e475	450	391
26	216	136	e129	e121	e127	157	532	1020	1170	e470	438	387
27	216	137	e130	e123	e130	156	558	946	1080	e470	423	374
28	214	136	e130	e122	e127	157	595	898	995	e470	431	360
29	211	147	e130	e120	e125	157	599	858	967	e470	423	360
30	209	153	e130	e120	---	157	632	831	951	e470	414	354
31	208	---	e130	e119	---	157	---	820	---	480	414	---
TOTAL	11512	4686	4270	3933	3643	4571	9449	34872	34412	17935	14112	11833
MEAN	371	156	138	127	126	147	315	1125	1147	579	455	394
MAX	560	211	165	132	168	171	632	1680	1890	876	490	418
MIN	208	136	128	119	118	127	160	657	816	470	414	354
AC-FT	22830	9290	8470	7800	7230	9070	18740	69170	68260	35570	27990	23470

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 1996. BY WATER YEAR (WY)

MEAN	246	156	121	109	108	134	249	606	929	574	416	395
MAX	699	518	424	240	288	456	784	1485	2419	1975	707	855
(WY)	1969	1968	1966	1966	1971	1985	1970	1936	1914	1957	1960	1956
MIN	60.3	53.3	39.8	40.8	35.2	34.6	55.8	129	109	168	83.2	91.6
(WY)	1938	1938	1963	1941	1941	1938	1941	1940	1940	1931	1913	1937

## SUMMARY STATISTICS

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1910 - 1996
ANNUAL TOTAL	205370	155228	
ANNUAL MEAN	563	424	338
HIGHEST ANNUAL MEAN			550
LOWEST ANNUAL MEAN			1995
HIGHEST DAILY MEAN	2480	Jul 15	155
LOWEST DAILY MEAN	e 120	Jan 2	3600
ANNUAL SEVEN-DAY MINIMUM	129	Dec 20	b 24
INSTANTANEOUS PEAK FLOW		c 2050	Mar 12 1938
INSTANTANEOUS PEAK STAGE		4.28	Feb 19 1941
ANNUAL RUNOFF (AC-FT)	407400	Jun 16	d 3760
10 PERCENT EXCEEDS	1590		Jun 9 1920
50 PERCENT EXCEEDS	275		f 5.00
90 PERCENT EXCEEDS	140		Jun 9 1920
			244800
			744
			197
			81

e-Estimated.

a-Also occurred Feb 2, 11-12.

a-Also occurred Feb 2, 11-12.  
b-Minimum discharge observed for period of record, before storage began in Taylor Park Reservoir, 50 ft<sup>3</sup>/s for several days in Aug 1913, gage height, 1.2 ft

c-May have been higher during period of no gage-height record, May 11-21.

d-From rating curve extended above 2300 ft<sup>3</sup>/s.  
f-Main channel height 5.39 ft. T-1, 1955.

f-Maximum gage height, 5.32 ft, Jul 1, 1957.

**09110000 TAYLOR RIVER AT ALMONT, CO--Continued**  
**WATER-QUALITY RECORDS**

PERIOD OF RECORD--October 1993 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET	SPE-CIFIC ANCE (US/CM)	pH DUCT- (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 (COLS./ 100 ML)	E. COLI WATER WHOLE URASE TOTAL (COL / 100 ML)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS.	
OCT 26...	1245	215	128	7.7	5.0	9.6	<1	<1	<0.01	<0.05	<0.015	<0.2	
MAR 25...	1440	157	148	7.9	3.5	10	K1	K1	<0.01	0.05	<0.015	<0.2	
MAY 23...	1045	1250	126	8.0	5.0	9.6	K4	K2	<0.01	<0.05	<0.015	<0.2	
SEP 09...	1230	397	114	8.5	12.0	8.6	<1	<1	0.01	0.07	<0.015	<0.2	
<hr/>													
DATE	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	CADMIUM DIS- SOLVED (UG/L AS CD)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- ERABLE (UG/L AS FE)	TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- ERABLE (UG/L AS PB)	MANGA- NESE, DIS- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 26...	<0.01	<0.01	<1	<1	80	<1	<10	<10	<0.1	<1	<0.2	<10	
MAR 25...	0.04	<0.01	<1	<1	60	<1	20	<10	<0.1	<1	<0.2	<10	
MAY 23...	<0.01	<0.01	<1	<1	250	<1	20	3	<0.1	<1	<0.2	<3	
SEP 09...	<0.01	<0.01	<1	<1	120	<1	20	2	<0.1	<1	<0.2	7	

K-Based on non-ideal colony count

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET	SPE-CIFIC ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET	SPE-CIFIC ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
OCT 04...	1230	500	114	8.0	APR 10...	1500	284	130	4.5
DEC 05...	1212	144	151	3.0	MAY 21...	1520	1430	126	7.5
FEB 13...	1408	121	136	0.5	JUN 18...	1410	1480	107	8.5

## GUNNISON RIVER BASIN

**09111500 SLATE RIVER NEAR CRESTED BUTTE, CO**

LOCATION.--Lat 38°52'11", long 106°58'08", in NW<sup>1/4</sup>NE<sup>1/4</sup> sec.2, T.14 S., R.86 W., Gunnison County, Hydrologic Unit 14020001, on right bank 400 ft downstream from Washington Gulch, 1 mi east of Crested Butte, and 6.3 mi upstream from mouth.

DRAINAGE AREA.--68.9 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--April 1940 to September 1951, October 1993 to current year. Monthly discharges only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 8,820 ft above sea level, from topographic map. Prior to Oct. 1, 1993, gage at site 0.3 mi downstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 1,300 acres upstream and downstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	38	e27	e27	e22	e18	e50	289	518	373	59	24
2	48	35	e26	e26	e21	e18	e60	319	617	357	58	23
3	48	33	e26	e26	e21	e18	e75	331	735	316	61	22
4	50	e32	e25	e25	e20	e18	e55	370	826	315	57	22
5	e49	e31	e24	e25	e21	e17	e80	479	930	305	51	23
6	e48	e30	e24	e25	e22	e17	e100	605	1010	278	49	30
7	e47	e29	e24	e24	e22	e16	111	686	983	264	47	33
8	e46	e29	e24	e24	e21	e17	153	745	923	223	45	25
9	e45	e29	e25	e24	e20	e18	199	829	860	204	42	23
10	e44	e28	e25	e23	e19	e18	254	819	860	196	40	22
11	e45	e28	e26	e23	e18	e19	255	866	868	e185	38	23
12	e46	e28	e26	e24	e19	e20	234	989	806	e176	37	24
13	e47	e27	e25	e25	e19	e21	189	1090	762	e160	36	27
14	e46	e28	e25	e25	e19	e21	159	1120	757	e150	35	28
15	e49	e29	e24	e25	e19	e22	150	1120	784	e148	35	26
16	e44	e29	e24	e25	e20	e20	139	1150	714	e165	34	25
17	e43	e28	e23	e24	e20	e19	148	1220	694	167	32	25
18	e42	e28	e23	e24	e20	e18	139	1190	667	143	32	25
19	e41	e27	e22	e24	e23	e18	133	1210	627	120	32	26
20	e40	e27	e22	e23	e24	e20	113	1200	595	111	31	26
21	e40	e27	e22	e23	e22	e22	96	1050	695	100	31	25
22	e39	e27	e21	e22	e20	e23	88	1020	657	90	34	27
23	e38	e27	e21	e22	e19	e23	90	972	574	83	31	37
24	e37	e27	e21	e21	e19	e24	137	844	514	78	30	34
25	36	e26	e20	e21	e19	e24	250	714	475	74	28	32
26	36	e27	e21	e20	e18	e23	301	618	445	69	29	29
27	35	e28	e22	e20	e18	e22	334	505	456	68	30	27
28	34	e28	e24	e21	e18	e22	312	436	412	68	27	26
29	34	e28	e25	e22	e18	e25	263	394	354	73	27	25
30	34	e27	e25	e23	---	e35	261	410	358	66	26	24
31	34	---	e26	e23	---	e44	---	441	---	63	25	---
TOTAL	1317	865	738	729	581	660	4928	24031	20476	5188	1169	788
MEAN	42.5	28.8	23.8	23.5	20.0	21.3	164	775	683	167	37.7	26.3
MAX	52	38	27	27	24	44	334	1220	1010	373	61	37
MIN	34	26	20	20	18	16	50	289	354	63	25	22
AC-FT	2610	1720	1460	1450	1150	1310	9770	47670	40610	10290	2320	1560

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1996, BY WATER YEAR (WY)

MEAN	30.2	22.9	15.9	12.2	10.9	15.5	123	532	617	223	55.3	25.4
MAX	63.9	37.9	25.1	23.5	20.0	27.8	303	778	971	804	237	62.7
(WY)	1942	1942	1994	1996	1996	1994	1943	1941	1995	1995	1995	1995
MIN	10.2	8.63	8.03	8.35	6.20	8.52	36.4	281	280	50.7	15.2	13.8
(WY)	1943	1943	1943	1947	1945	1950	1944	1995	1940	1940	1940	1942

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1940 - 1996

ANNUAL TOTAL	78654		61470									
ANNUAL MEAN	215		168									
HIGHEST ANNUAL MEAN												
LOWEST ANNUAL MEAN												
HIGHEST DAILY MEAN	1390	Jun 17	1220	May 17	1390	Jun 17	1995					
LOWEST DAILY MEAN	e11	Jan 2	e16	Mar 7		3.9	Nov 26 1942					
ANNUAL SEVEN-DAY MINIMUM	13	Jan 1	17	Mar 2		5.8	Nov 21 1942					
INSTANTANEOUS PEAK FLOW			1330	May 17	1550	Jun 17 1995						
INSTANTANEOUS PEAK STAGE			5.37	May 17	5.84	Jun 17 1995						
ANNUAL RUNOFF (AC-FT)	156000		121900		104300							
10 PERCENT EXCEEDS	793		660		530							
50 PERCENT EXCEEDS	46		31		26							
90 PERCENT EXCEEDS	16		20		10							

e-Estimated.

**09111500 SLATE RIVER NEAR CRESTED BUTTE, CO--Continued**  
**WATER-QUALITY RECORDS**

PERIOD OF RECORD--March 1995 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-	SPE-	COLI-				HARD-	CALCIUM	MAGNE-	SODIUM,
		CHARGE, INST.	CIFIC	pH	TEMPER-	OXYGEN,	FECAL,			SIUM,	
		FEET DUCT- CUBIC CUBIC	CON- ANCE	(STAND- ARD UNITS)	ATURE WATER (DEG C)	DIS- SOLVED (MG/L)	UM-MF (COLS./ 100 ML)	(MG/L AS CACO3)	DIS- SOLVED (MG/L AS CA)	SOLVED (MG/L AS MG)	SOLVED (MG/L AS NA)
OCT 24...	0915	35	140	7.9	0.5	10.1	250	58	19	2.6	3.8
JAN 18...	1330	25	168	7.2	0.0	9.0	160	78	25	3.8	7.9
FEB 21...	1215	21	189	7.3	0.0	10.3	22	76	24	3.8	7.8
MAR 28...	0930	21	206	7.2	1.0	10.2	23	78	25	3.8	6.9
MAY 20...	1400	1130	68	8.3	7.0	10.0	K2	28	9.1	1.3	1.4
JUL 17...	0900	196	85	7.6	9.5	8.2	170	33	11	1.4	1.7
AUG 08...	0745	46	128	8.2	8.5	8.2	130	54	18	2.2	3.0
SEP 09...	1810	23	180	8.1	15.5	7.2	K20	71	24	2.8	4.5
<hr/>											
DATE		SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LILITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (TONS AC-FT)	SOLIDIS, DIS- SOLVED (TONS PER DAY)	SOLIDIS, DIS- SOLVED (TONS PER DAY)
OCT 24...	0.2	0.6	45	20	1.1	0.2	5.5	81	0.11	7.66	
JAN 18...	0.4	1.0	53	29	2.0	0.4	6.8	110	0.15	7.24	
FEB 21...	0.4	1.2	63	26	2.5	0.3	6.5	112	0.15	6.38	
MAR 28...	0.3	1.0	60	29	2.9	0.3	6.7	114	0.15	6.49	
MAY 20...	0.1	0.5	24	8.3	0.30	<0.1	5.7	41	0.06	127	
JUL 17...	0.1	0.4	29	10	0.70	<0.1	3.9	46	0.06	24.6	
AUG 08...	0.2	0.6	41	18	0.70	0.2	5.2	74	0.10	9.13	
SEP 09...	0.2	0.9	48	34	1.1	0.4	6.2	103	0.14	6.41	
<hr/>											
DATE		NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS DIS- TOTAL (MG/L AS P)	PHOS- PHORUS DIS- TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)
OCT 24...	0.03	0.25	0.02	<0.2	<0.2	0.02	0.02	0.02	0.02	0.03	
JAN 18...	<0.01	0.34	0.12	<0.2	<0.2	0.08	0.08	0.08	0.08	0.06	
FEB 21...	0.02	0.29	0.15	<0.2	0.2	0.06	0.06	0.07	0.07	0.06	
MAR 28...	0.02	0.41	0.19	0.3	0.3	0.09	0.09	0.09	0.09	0.08	
MAY 20...	<0.01	0.11	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01	<0.01	<0.01	
AUG 08...	0.01	0.19	0.08	<0.2	<0.2	0.04	0.04	0.03	0.03	0.03	
SEP 09...	0.01	0.10	0.05	<0.2	<0.2	<0.01	<0.01	<0.01	<0.01	<0.01	

K-Based on non-ideal colony count.

## GUNNISON RIVER BASIN

**09111500 SLATE RIVER NEAR CRESTED BUTTE, CO--Continued**

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE , INST . CUBIC FEET PER SECOND			SPE- CIFIC DUCT- ANCE (US/CM)			DATE	TIME	DIS- CHARGE , INST . CUBIC FEET PER SECOND			SPE- CIFIC DUCT- ANCE (US/CM)		
		CON-	TEMPER- ATURE WATER (DEG C)	CON-	TEMPER- ATURE WATER (DEG C)	CON-	TEMPER- ATURE WATER (DEG C)			CON-	TEMPER- ATURE WATER (DEG C)				
OCT 05...	1000	46	139	3.0				MAY 21...	1123	969	70	4.0			
NOV 29...	1545	33	117	1.0				JUL 12...	0935	176	80	6.5			
DEC 12...	1530	28	214	0.5				AUG 22...	0822	32	144	8.5			

**09112200 EAST RIVER BELOW CEMENT CREEK, NEAR CRESTED BUTTE, CO**

LOCATION.--Lat 38°47'03", long 106°52'13", in NE<sup>1/4</sup>NE<sup>1/4</sup> sec.3, T.15 S., R.85 W., Gunnison County, Hydrologic Unit 14020001, on left bank 11 ft downstream from bridge on State Highway 135, 1.6 mi downstream from Cement Creek, and 8.5 mi southeast of Crested Butte.

DRAINAGE AREA.--238 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--October 1963 to September 1972, October 1979 to September 1981, October 1993 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 8,440 ft above sea level, from topographic map. Prior to Oct. 1993, water-stage recorder 0.5 mi upstream, at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 4,500 acres upstream and downstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	151	168	e76	e69	e62	69	75	626	1060	943	258	103
2	137	150	e78	e68	e62	64	94	694	1190	910	248	100
3	135	116	e79	e68	e62	64	105	756	1420	835	260	97
4	145	125	e79	e68	e66	61	96	847	1620	808	257	94
5	140	125	e80	e71	e69	62	98	1100	1730	797	228	95
6	132	139	e80	e72	e61	61	111	1320	1880	752	216	112
7	141	140	e79	e72	e60	59	134	1420	1910	729	212	135
8	144	129	e79	e72	e61	60	182	1510	1820	651	208	109
9	135	134	e78	e72	e64	59	249	1650	1760	595	200	101
10	140	128	e76	e72	e69	58	312	1640	1770	567	192	96
11	145	120	e75	e72	e70	58	358	1680	1830	539	183	92
12	148	143	e74	e70	e72	60	334	1860	1770	478	164	96
13	188	138	e72	e70	e75	60	305	2120	1710	430	158	114
14	157	136	e69	e69	e76	58	248	2240	1710	403	149	118
15	150	130	e63	e67	74	56	234	2250	1800	397	136	109
16	148	129	e66	e65	74	58	243	2400	1690	416	122	103
17	148	129	e69	e63	72	58	256	2580	1630	446	119	102
18	145	118	e63	e62	71	54	238	2460	1590	439	122	101
19	143	118	e57	e62	69	55	204	2470	1520	402	125	105
20	132	118	e53	e64	72	55	186	2470	1440	380	124	112
21	138	115	e56	e61	e72	54	177	2160	1660	362	133	114
22	141	117	e53	e63	74	58	167	2020	1700	351	146	111
23	126	111	e51	e67	67	64	174	1900	1480	350	143	130
24	133	101	e49	e66	73	60	264	1710	1330	329	128	123
25	139	109	e50	e64	71	60	470	1540	1260	313	123	118
26	139	111	e54	e62	70	57	568	1380	1160	296	123	130
27	134	100	e56	e63	67	58	648	1160	1200	289	138	124
28	132	78	e58	e67	64	60	635	1030	1140	289	127	116
29	136	e80	e60	e65	66	64	546	931	987	311	120	113
30	148	e75	e63	e64	---	65	555	933	958	284	112	108
31	151	---	e67	e62	---	68	---	934	---	271	107	---
TOTAL	4421	3630	2062	2072	1985	1857	8266	49791	45725	15362	5081	3281
MEAN	143	121	66.5	66.8	68.4	59.9	276	1606	1524	496	164	109
MAX	188	168	80	72	76	69	648	2580	1910	943	260	135
MIN	126	75	49	61	60	54	75	626	958	271	107	92
AC-FT	8770	7200	4090	4110	3940	3680	16400	98760	90700	30470	10080	6510

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1996, BY WATER YEAR (WY)

MEAN	115	88.1	70.2	61.3	58.4	65.6	227	1003	1357	601	221	139
MAX	188	121	96.2	83.2	76.0	111	404	1606	2450	1796	609	271
(WY)	1966	1996	1966	1971	1971	1972	1971	1996	1995	1995	1995	1965
MIN	58.5	62.4	51.7	43.8	42.7	43.5	77.0	406	633	181	91.7	64.3
(WY)	1964	1964	1964	1995	1964	1964	1981	1981	1981	1981	1981	1994

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1964 - 1996

ANNUAL TOTAL	197125	143533										
ANNUAL MEAN	540	392										
HIGHEST ANNUAL MEAN												
LOWEST ANNUAL MEAN												
HIGHEST DAILY MEAN	3610	Jun 17	2580	May 17								
LOWEST DAILY MEAN	36	Jan 24	e49	Dec 24								
ANNUAL SEVEN-DAY MINIMUM	40	Jan 18	52	Dec 20								
INSTANTANEOUS PEAK FLOW			2860	May 20								
INSTANTANEOUS PEAK STAGE			4.81	May 20								
ANNUAL RUNOFF (AC-FT)	391000	284700										
10 PERCENT EXCEEDS	1860	1490										
50 PERCENT EXCEEDS	140	126										
90 PERCENT EXCEEDS	48	61										

e-Estimated.

a-Maximum gage height for period of record, 8.30 ft, Jun 12, 1980, from floodmarks, site and datum then in use.

**09112200 EAST RIVER BELOW CEMENT CREEK NEAR CRESTED BUTTE, CO--Continued  
(National Water-Quality Assessment Program station)**

**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--October 1993 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 1995 to current year.

WATER TEMPERATURES: May 1995 to current year.

DISSOLVED OXYGEN: May 1995 to current year.

INSTRUMENTATION.--Water-quality monitor with satellite telemetry since May 1995.

REMARKS.--Upper Colorado River Basin National Water Quality Assessment station (NAWQA). Daily maximum and minimum specific conductance data for Water Year 1995 available in district office. Missing daily data were caused by instrument or sensor malfunction. Daily specific conductance data are good. Daily water temperature data are good. Daily dissolved oxygen data are good.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 366 microsiemens Dec. 15, 1995; minimum, 125 microsiemens June 22, 1995.

WATER TEMPERATURE: Maximum, 17.8°C Aug. 16, 1996; minimum, 0°C on many days during winter months.

DISSOLVED OXYGEN: Maximum, 11.2 mg/L Sept. 19, 21, 1996 (may have been higher during periods of missing record); minimum 6.7 mg/L July 24, 1996 (may have been lower during periods of missing record).

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 366 microsiemens Dec. 15; minimum, 130 microsiemens June 7.

WATER TEMPERATURE: Maximum, 17.8°C, Aug. 16; minimum, 0°C on many days during the winter period.

DISSOLVED OXYGEN: Maximum, 11.2 mg/L Sept. 19, 21 (may have been higher during periods of missing record); minimum 6.7 mg/L July 24 (may have been lower during periods of missing record).

**WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996**

DATE	TIME	DIS-	CHARGE,	SPE-	OXYGEN	COLI-	E. COLI	HARD-	
		INST.	CUBIC	CIFIC	DEMAND,	FORM,	WATER		
		FEET	CON-	PH	TEMPER-	BIO-	FECAL,	NESS	
		DUCT-	ANCE	(STAND-	ATURE	DIS-	CHEM-	WHOLE	TOTAL
		PER	SECOND	ARD	WATER	SOLVED	ICAL,	TOTAL	(MG/L)
				(US/CM)	(DEG C)	(MG/L)	(MG/L)	(100 ML)	(COL / 100 ML)
OCT									
25...	1140	106	285	8.2	3.5	10.2	0.8	--	K10 <1 130
NOV									
30...	1015	68	316	8.3	1.5	10.9	--	--	-- 150
DEC									
06...	1430	e80	293	8.5	3.5	9.7	0.6	0.2	<1 K5 130
15...	1100	e63	314	8.2	0.0	10.9	--	--	-- 150
JAN									
11...	1430	88	278	8.5	1.0	10.8	0.6	--	<1 -- 140
18...	1520	e62	299	7.8	0.0	10.6	--	--	-- 140
FEB									
27...	1410	66	293	9.0	2.0	10.4	--	--	-- 130
MAR									
19...	1530	63	283	9.0	4.0	10.3	--	--	-- 120
27...	1315	62	277	9.0	5.0	10.9	--	0.5	-- -- 130
APR									
03...	1315	100	253	8.6	6.0	9.8	--	--	-- 120
10...	1445	335	215	7.8	3.0	10.2	--	--	-- 93
MAY									
07...	1431	1260	182	8.2	7.5	8.9	--	--	-- 86
16...	1120	2260	149	8.0	5.5	9.5	--	--	-- 69
22...	1630	1860	155	8.2	10.5	8.1	1.6	7.6	K2 K1 73
30...	1200	930	192	8.2	6.5	8.6	--	--	-- 98
JUN									
12...	1320	1740	154	7.8	8.5	8.3	--	--	-- 72
JUL									
17...	1120	486	218	8.3	12.5	8.0	0.8	1.2	37 K24 100
AUG									
23...	1200	137	305	8.4	13.5	10	--	--	-- 140
SEP									
03...	1136	96	305	8.4	13.5	7.6	--	--	-- 150
11...	1215	90	305	8.6	13.0	8.0	0.4	0.6	K5 <1 150

e-Estimated.

K-Based on non-ideal colony count.

**09112200 EAST RIVER BELOW CEMENT CREEK NEAR CRESTED BUTTE, CO--Continued**  
**(National Water-Quality Assessment Program station)**

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- <sup>a</sup> BONATE WATER FIELD (MG/L AS HCO3)	CAR- <sup>b</sup> BONATE WATER FIELD (MG/L AS CO3)	ALKA- <sup>c</sup> LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3)	ALKA- <sup>d</sup> LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
OCT 25...	42	7.1	4.0	0.2	0.9	126	--	104	--	34
NOV 30...	46	8.5	4.3	0.2	0.9	139	--	114	--	34
DEC 06...	40	7.4	4.0	0.2	0.9	--	--	--	112	36
15...	46	8.1	4.8	0.2	1.1	157	--	129	--	35
JAN 11...	44	8.0	4.7	0.2	0.8	--	--	--	117	34
18...	44	7.8	5.0	0.2	1.0	117	--	96	--	32
FEB 27...	40	7.6	5.4	0.2	1.0	100	12	102	--	33
MAR 19...	38	7.3	6.0	0.2	1.1	99	6	91	--	32
27...	40	7.2	5.7	0.2	1.2	115	6	104	--	32
APR 03...	37	6.5	4.5	0.2	0.9	112	2	96	--	32
10...	29	5.0	3.1	0.1	1.0	93	--	76	--	24
MAY 07...	27	4.4	2.1	0.1	0.7	89	--	73	--	15
16...	22	3.5	1.4	0.1	0.6	74	--	61	--	9.9
22...	23	3.7	1.6	0.1	0.5	--	--	--	64	11
30...	31	5.0	2.2	0.1	0.6	99	--	81	--	14
JUN 12...	23	3.5	1.3	0.1	0.5	78	--	64	--	11
JUL 17...	32	4.9	2.0	0.1	0.7	105	2	89	--	18
AUG 23...	44	7.6	3.6	0.1	0.9	143	1	119	--	32
SEP 03...	46	7.8	3.8	0.1	1.0	142	2	120	--	29
11...	46	7.9	4.1	0.1	1.0	--	--	--	128	30
CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	RESIDUE AT 180 DIS- SOLVED (MG/L)	SOLIDs, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDs, DIS- SOLVED (TONS AC-FT)	SOLIDs, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	
OCT 25...	1.2	0.2	6.8	170	159	0.23	48.7	<0.01	0.09	<0.015
NOV 30...	1.2	0.2	6.7	180	171	0.24	33.1	<0.01	0.08	<0.015
DEC 06...	1.1	0.2	6.8	--	164	0.22	--	<0.01	0.09	<0.015
15...	1.5	0.2	7.8	193	182	0.26	--	<0.01	0.16	<0.015
JAN 11...	1.2	0.2	7.1	--	171	0.23	40.7	<0.01	0.13	<0.015
18...	3.7	0.2	7.3	173	159	0.24	--	<0.01	0.16	<0.015
FEB 27...	1.9	0.2	6.9	177	157	0.24	31.5	<0.01	<0.05	0.02
MAR 19...	2.2	0.2	7.2	173	149	0.24	29.4	<0.01	0.15	<0.015
27...	2.5	0.2	7.2	167	159	0.23	28.0	0.02	0.07	<0.015
APR 03...	2.0	0.2	6.4	153	147	0.21	41.3	<0.01	0.16	<0.015
10...	1.4	0.1	6.2	88	116	0.12	79.6	<0.01	0.17	0.03
MAY 07...	0.6	0.1	6.0	103	101	0.14	350	<0.01	0.23	0.03
16...	0.4	<0.1	5.1	92	81	0.13	561	<0.01	0.12	0.02
22...	0.3	<0.1	5.2	90	86	0.12	452	<0.01	0.10	<0.015
30...	0.5	<0.1	6.2	132	109	0.18	331	<0.01	0.13	0.03
JUN 12...	0.3	<0.1	4.8	84	83	0.11	396	0.01	0.09	0.04
JUL 17...	0.4	<0.1	5.5	122	118	0.17	160	0.01	0.10	0.02
AUG 23...	1.6	0.2	7.0	176	169	0.24	65.1	<0.01	0.09	<0.015
SEP 03...	1.0	0.1	7.4	180	168	0.24	46.6	<0.01	0.08	<0.015
11...	1.0	0.2	7.2	--	175	0.24	42.5	<0.01	0.09	0.02

a-Field dissolved bicarbonate, determined by incremental titration method.

b-Field dissolved carbonate, determined by incremental titration method.

c-Field total dissolved alkalinity, determined by incremental titration method.

d-Lab total dissolved alkalinity, determined by fixed end-point method.

## GUNNISON RIVER BASIN

**09112200 EAST RIVER BELOW CEMENT CREEK NEAR CRESTED BUTTE, CO--Continued**  
**(National Water-Quality Assessment Program station)**

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED (MG/L AS C)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)
<b>OCT</b>									
25...	<0.2	<0.2	<0.01	<0.01	<0.01	0.7	0.2	6	6
NOV									
30...	<0.2	<0.2	<0.01	0.01	<0.01	0.6	0.1	<3	3
DEC									
06...	<0.2	<0.2	<0.01	0.01	<0.01	--	--	--	<10
15...	<0.2	<0.2	<0.01	<0.01	<0.01	0.7	0.2	3	3
JAN									
11...	<0.2	<0.2	0.02	<0.01	<0.01	--	--	--	--
18...	<0.2	<0.2	0.02	0.02	0.02	0.8	0.3	4	4
FEB									
27...	<0.2	<0.2	0.03	0.01	0.01	0.8	0.4	<3	5
MAR									
19...	<0.2	<0.2	0.02	0.03	0.02	0.9	0.9	3	6
27...	<0.2	<0.2	<0.01	0.01	0.01	1.0	0.5	3	6
APR									
03...	<0.2	<0.2	0.03	<0.01	<0.01	1.3	0.4	11	15
10...	0.4	<0.2	0.09	0.02	0.01	1.7	1.2	25	54
MAY									
07...	0.4	<0.2	0.06	0.01	<0.01	2.7	1.2	32	41
16...	0.3	<0.2	0.06	0.01	<0.01	2.6	0.9	25	10
22...	0.2	<0.2	0.01	<0.01	<0.01	--	--	22	8
30...	<0.2	<0.2	0.02	<0.01	<0.01	1.8	0.3	20	10
JUN									
12...	<0.2	<0.2	0.05	<0.01	<0.01	1.7	--	15	7
JUL									
17...	<0.2	<0.2	<0.01	<0.01	<0.01	1.0	0.2	12	7
AUG									
23...	<0.2	<0.2	0.02	<0.01	<0.01	0.8	<0.1	8	3
SEP									
03...	<0.2	<0.2	<0.01	<0.01	<0.01	0.7	0.2	6	3
11...	<0.2	<0.2	0.02	<0.01	<0.01	--	--	--	2
<b>ALUM- INUM, CADMIUM DIS-SOLVED (UG/L AS AL)</b>									
<b>COPPER, IRON, DIS-SOLVED (UG/L AS CD)</b>									
<b>RECOV-ERABLE (UG/L AS FE)</b>									
<b>LEAD, DIS-SOLVED (UG/L AS PB)</b>									
<b>RECOV-ERABLE (UG/L AS MN)</b>									
<b>MERCURY, NIUM, DIS-SOLVED (UG/L AS HG)</b>									
<b>SELE-NESE, SILVER, ZINC, DIS-SOLVED (UG/L AS SE)</b>									
<b>ZINC, DIS-SOLVED (UG/L AS ZN)</b>									
DEC									
06...	10	<1	<1	40	<1	<10	<0.1	<1	<0.2
MAR									
27...	--	<1	<1	150	<1	20	<0.1	<1	<0.2
MAY									
22...	20	<1	1	470	<1	30	<0.1	<1	<0.2
SEP									
11...	<5	<1	<1	50	<1	<10	<0.1	<1	<0.2
									5

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, DIS- MENT, CHARGE, SUS- SUS- PENDED (MG/L)	SEDI-MENT, DIS- MENT, CHARGE, SUS- SUS- PENDED (T/DAY)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, DIS- MENT, CHARGE, SUS- SUS- PENDED (MG/L)	SEDI-MENT, DIS- MENT, CHARGE, SUS- SUS- PENDED (T/DAY)					
NOV					<b>MAY</b>									
30...	1015	68	2	0.37	07...	1431	1260	58	197					
DEC					16...	1120	2260	52	317					
15...	1100	e63	2	e0.34	16...	1125	2260	55	336					
JAN					30...	1200	930	9	23					
18...	1520	e62	2	e0.33	<b>JUN</b>									
FEB					12...	1320	1740	14	66					
27...	1410	66	2	0.36	JUL									
MAR					17...	1120	486	7	9.2					
19...	1530	63	2	0.34	AUG									
27...	1315	62	17	2.8	23...	1200	137	1	0.37					
APR					SEP									
03...	1315	100	5	1.4	03...	1136	96	1	0.26					
10...	1445	335	36	33										

e-Estimated.

f-Suspended-sediment concentration determined from a subsample split of a composite sample.

**09112200 EAST RIVER BELOW CEMENT CREEK NEAR CRESTED BUTTE, CO--Continued**  
**(National Water-Quality Assessment Program station)**

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER				NOVEMBER				DECEMBER			
1	281	271	276	291	281	285	330	300	315	312	299	306
2	287	275	281	300	281	290	334	295	316	316	297	308
3	287	275	282	311	291	300	331	297	316	312	303	307
4	287	269	278	314	296	305	329	286	314	306	300	302
5	286	272	281	313	297	306	308	301	304	303	297	300
6	293	281	287	311	298	304	305	300	302	305	291	299
7	296	279	286	306	298	301	311	301	304	302	295	300
8	288	272	280	313	292	301	313	303	308	305	288	296
9	288	276	282	308	295	301	328	282	312	305	288	297
10	297	285	291	301	284	294	330	299	315	---	---	---
11	298	285	291	320	292	308	331	296	317	---	---	---
12	295	278	289	314	287	302	311	302	307	---	---	---
13	279	260	270	299	292	295	302	298	300	---	---	---
14	281	271	277	299	292	296	306	295	301	---	---	---
15	288	275	281	308	293	298	366	305	334	---	---	---
16	289	277	282	308	294	300	336	316	329	---	---	---
17	288	276	282	307	294	299	331	317	327	---	---	---
18	290	278	284	312	296	302	346	312	329	---	---	---
19	291	280	285	312	294	302	355	317	336	---	---	---
20	295	284	289	310	294	302	349	319	337	---	---	---
21	298	285	290	310	295	302	343	316	332	---	---	---
22	300	285	291	308	294	300	340	319	331	---	---	---
23	301	287	295	313	296	302	343	318	334	---	---	---
24	306	290	296	313	299	305	346	320	336	---	---	---
25	304	289	295	315	299	305	343	318	333	---	---	---
MONTH	306	260	287	333	281	302	366	282	320	---	---	---
	FEBRUARY				MARCH				APRIL			
1	---	---	---	315	285	307	281	263	273	217	203	210
2	---	---	---	313	283	306	276	251	263	209	195	203
3	---	---	---	314	281	305	259	248	253	206	195	200
4	---	---	---	312	292	304	267	251	260	207	182	199
5	323	301	306	309	288	300	271	245	259	191	170	184
6	324	302	315	311	287	298	271	237	254	180	165	172
7	321	292	312	323	276	302	260	230	245	178	162	169
8	318	293	310	326	283	309	241	212	229	178	160	167
9	316	280	305	319	280	306	222	211	217	171	154	162
10	305	283	297	317	282	305	212	198	207	172	155	162
11	305	272	294	317	284	306	212	200	205	171	154	161
12	309	274	298	313	295	305	218	209	213	164	148	154
13	312	276	301	311	291	302	232	216	222	153	137	148
14	307	281	296	311	291	301	242	231	234	151	136	143
15	308	279	301	312	279	302	251	237	244	145	135	140
16	315	278	303	312	291	303	252	244	248	146	135	141
17	312	278	303	306	290	300	252	243	247	143	138	139
18	308	289	301	314	284	301	249	241	245	146	138	143
19	310	290	301	327	275	308	258	247	252	145	138	142
20	306	288	296	328	281	308	267	254	260	147	134	140
21	---	---	---	320	280	304	264	256	260	156	144	150
22	298	284	291	314	283	302	270	261	264	155	146	150
23	306	276	294	301	291	296	268	258	265	158	148	152
24	315	275	302	301	281	294	259	237	252	164	153	158
25	---	---	---	301	284	295	237	206	221	174	163	169
26	312	296	305	311	268	295	220	203	210	180	171	176
27	312	285	303	319	289	301	214	200	208	188	179	184
28	318	283	306	298	282	289	216	199	208	195	187	191
29	319	284	306	287	276	283	225	211	219	202	192	196
30	---	---	---	285	273	279	226	211	220	193	184	190
31	---	---	---	283	272	278	---	---	---	190	180	184
MONTH	---	---	---	328	268	300	281	198	239	217	134	167

## GUNNISON RIVER BASIN

**09112200 EAST RIVER BELOW CEMENT CREEK NEAR CRESTED BUTTE, CO--Continued**  
**(National Water-Quality Assessment Program station)**

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	180	170	175	190	172	181	272	262	267	301	295	298
2	171	161	166	192	169	180	273	263	268	302	295	299
3	163	152	157	199	180	188	273	260	266	304	294	300
4	163	145	151	199	182	190	270	262	266	305	297	302
5	153	140	145	200	181	190	277	269	273	305	297	302
6	149	132	140	204	186	194	283	274	279	301	292	296
7	150	130	140	205	183	193	285	274	280	292	274	280
8	151	137	143	214	188	199	285	275	280	296	284	292
9	155	142	148	---	---	---	284	274	279	301	294	297
10	160	142	148	---	---	---	285	277	281	306	296	300
11	154	139	146	---	---	---	291	281	285	304	296	301
12	158	144	151	---	---	---	294	287	290	304	294	299
13	162	150	155	---	---	---	296	288	292	302	294	297
14	163	151	155	---	---	---	300	288	293	299	287	291
15	158	150	153	---	---	---	325	300	308	295	288	291
16	166	151	157	---	---	---	324	310	316	296	292	293
17	167	152	159	---	---	---	322	314	318	297	292	294
18	168	152	159	---	---	---	316	300	309	298	294	296
19	170	153	160	---	---	---	314	307	311	297	291	294
20	172	155	163	---	---	---	316	310	313	298	288	295
21	165	152	157	---	---	---	316	306	311	300	294	296
22	164	155	160	---	---	---	316	300	310	301	290	295
23	175	155	163	---	---	---	307	295	303	292	273	283
24	179	162	170	---	---	---	308	302	305	283	275	280
25	181	163	171	256	243	240	307	304	306	289	279	282
26	184	169	176	260	252	257	307	302	304	289	284	286
27	183	168	174	264	253	259	307	293	298	297	286	289
28	186	170	177	267	252	261	301	296	298	297	291	294
29	195	180	186	262	252	257	302	285	293	297	291	295
30	194	175	183	267	258	263	295	288	292	299	293	296
31	---	---	---	271	260	265	298	291	295	---	---	---
MONTH	195	130	160	---	---	---	325	260	293	306	273	294

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	8.9	4.3	6.4	6.6	3.5	4.9	4.2	.2	1.3	1.6	.1	.6
2	9.7	3.5	6.5	4.7	.8	2.6	4.1	.2	1.2	.4	.1	.2
3	10.0	3.5	6.6	4.5	.1	1.4	3.6	.2	1.1	1.3	.1	.6
4	7.3	4.3	5.7	4.2	.1	1.5	3.7	.5	1.7	2.5	.7	1.3
5	7.2	2.3	4.6	4.6	.1	1.6	3.5	1.9	2.5	2.6	.7	1.3
6	8.1	.9	4.3	4.3	.4	2.3	4.1	1.5	2.5	.9	.1	.3
7	8.7	2.0	5.1	4.9	2.2	3.4	2.7	.6	1.4	2.2	.1	.6
8	8.8	3.2	5.9	5.9	1.0	3.1	3.0	.2	1.1	1.3	.1	.4
9	9.2	2.4	5.4	3.9	1.2	2.5	3.1	.1	1.1	2.1	.1	.7
10	9.7	3.0	6.1	1.9	.1	.8	2.6	.1	.7	2.8	.3	1.2
11	10.1	3.5	6.6	2.3	.1	.7	2.6	.1	.8	1.5	.1	.5
12	8.1	4.4	6.3	3.6	.3	1.8	3.2	.9	1.8	2.2	.1	.5
13	8.5	3.9	6.2	5.5	2.3	3.7	3.2	1.7	2.2	2.6	.1	.7
14	8.5	2.2	5.2	5.9	1.7	3.7	3.1	.1	1.3	2.3	.1	.6
15	9.3	2.8	5.9	5.5	1.0	3.0	.3	.0	.1	---	---	---
16	8.8	3.3	6.0	5.4	.8	2.9	1.3	.1	.5	---	---	---
17	9.1	3.3	6.0	5.2	1.0	2.9	2.4	.1	.6	---	---	---
18	9.2	3.2	5.9	5.1	.3	2.2	1.3	.1	.3	---	---	---
19	8.3	3.5	5.8	5.2	.4	2.2	.8	.1	.2	---	---	---
20	7.4	1.2	4.3	5.4	.5	2.4	.7	.1	.2	---	---	---
21	7.9	1.6	4.7	5.0	.5	2.2	1.0	.1	.3	---	---	---
22	6.4	2.8	4.8	4.5	1.1	2.5	1.1	.1	.3	---	---	---
23	5.8	.2	2.8	5.1	.9	2.5	.2	.1	.1	---	---	---
24	6.6	.5	3.2	5.1	.2	1.9	.3	.1	.1	---	---	---
25	6.6	.9	3.6	5.5	.5	2.2	.7	.1	.2	---	---	---
26	6.9	2.1	4.1	3.1	.4	1.7	1.2	.1	.3	---	---	---
27	7.2	2.7	4.8	2.6	.1	.8	1.1	.1	.3	---	---	---
28	6.4	1.7	4.1	1.9	.1	.5	1.1	.1	.3	---	---	---
29	6.1	2.0	4.1	3.8	.3	1.3	1.6	.1	.6	---	---	---
30	7.4	3.0	5.2	3.7	.1	1.0	1.6	.2	.8	---	---	---
31	8.0	4.5	5.9	---	---	---	2.0	.4	1.0	---	---	---
MONTH	10.1	.2	5.2	6.6	.1	2.2	4.2	.0	.9	---	---	---

**09112200 EAST RIVER BELOW CEMENT CREEK NEAR CRESTED BUTTE, CO--Continued**  
**(National Water-Quality Assessment Program station)**

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	3.9	.0	1.0	7.2	.5	2.9	6.6	1.5	3.8
2	---	---	---	5.3	.0	1.5	5.5	.7	2.4	7.8	1.6	4.3
3	---	---	---	5.0	.0	1.4	6.2	1.2	2.9	7.2	1.9	4.0
4	---	---	---	5.3	.4	2.3	5.5	.8	2.6	9.0	.9	4.4
5	---	---	---	3.4	.1	1.7	7.0	.6	3.0	8.8	.8	4.3
6	4.4	.4	2.0	5.3	.0	1.7	5.9	.6	2.6	8.2	.8	4.1
7	4.0	.1	1.4	3.3	.0	1.0	6.7	.7	2.9	8.9	.9	4.4
8	4.5	.1	1.5	4.8	.0	1.5	6.6	1.1	3.0	9.3	1.3	4.9
9	3.8	.0	1.1	6.0	.0	1.8	5.9	.5	2.6	8.6	1.5	4.7
10	3.7	.0	1.4	5.6	.0	2.0	3.9	.5	2.2	9.2	1.7	5.1
11	3.0	.0	.9	6.5	.0	2.3	3.9	.8	1.9	10.2	1.5	5.5
12	2.4	.0	.5	6.9	.8	2.8	6.3	.4	2.8	10.3	2.0	5.8
13	1.8	.0	.4	5.1	.6	2.6	3.3	.8	1.9	10.5	1.9	5.7
14	3.4	.0	.9	5.2	.7	2.4	6.5	.1	2.7	9.0	2.1	5.3
15	4.8	.0	1.4	6.5	.0	2.3	7.2	.1	3.2	10.8	2.0	5.9
16	3.5	.0	1.0	7.3	.6	3.0	7.7	.6	4.1	10.9	2.5	6.3
17	4.4	.0	1.4	5.4	.7	2.5	5.0	1.9	3.4	8.8	3.4	5.9
18	5.0	1.3	2.4	5.1	.0	1.6	3.6	1.1	2.1	10.3	2.6	6.2
19	3.3	.9	1.8	5.0	.0	1.3	5.7	.1	2.4	10.9	4.2	7.0
20	4.0	.8	2.1	6.1	.0	1.8	3.7	.1	1.7	9.3	3.1	5.9
21	---	---	---	7.1	.0	2.6	7.6	.3	3.7	10.3	2.6	6.1
22	4.1	.7	2.1	7.4	.3	3.0	6.7	.4	3.7	10.1	2.9	6.4
23	4.5	.0	1.8	5.4	.8	2.6	10.4	1.7	5.3	9.0	3.7	6.2
24	2.7	.0	1.0	5.9	.3	2.2	10.0	2.3	5.9	5.9	3.0	4.7
25	---	---	---	5.0	.3	2.0	7.4	2.8	4.8	6.0	3.4	4.6
26	2.7	.0	1.1	5.3	.0	1.7	7.3	.6	3.6	5.2	3.3	4.2
27	3.0	.0	.8	6.7	.0	1.8	7.0	1.8	3.9	6.3	3.3	4.6
28	2.8	.0	.6	7.1	.6	3.1	5.2	.3	2.5	7.4	3.3	5.3
29	1.5	.0	.4	6.9	.7	3.1	6.5	.1	3.0	10.2	3.0	6.7
30	---	---	---	7.9	1.1	3.5	8.5	1.3	4.5	9.6	4.6	7.1
31	---	---	---	6.9	.9	3.1	---	---	---	10.5	3.8	7.0
MONTH	---	---	---	7.9	.0	2.2	10.4	.1	3.1	10.9	.8	5.4
	JUNE			JULY			AUGUST			SEPTEMBER		
1	11.2	4.5	7.7	14.2	7.4	10.9	17.1	9.5	13.1	13.9	8.0	11.1
2	11.3	3.6	7.5	13.6	7.4	10.8	16.3	10.2	13.2	15.3	9.6	12.3
3	11.7	3.8	7.6	14.6	7.7	11.3	15.6	10.8	13.0	16.6	8.6	12.3
4	11.8	3.8	7.7	14.0	8.9	11.6	15.6	10.3	12.7	16.0	8.6	12.0
5	11.8	4.3	7.9	12.9	8.8	11.0	16.7	8.6	12.3	14.2	8.6	11.3
6	11.9	4.1	7.7	15.4	8.6	12.0	17.0	8.8	12.5	11.3	8.9	10.4
7	12.1	3.4	7.5	15.1	8.6	12.0	16.4	9.3	12.6	14.5	8.1	10.7
8	10.5	4.1	7.4	13.2	9.0	11.1	14.5	9.4	12.2	14.1	7.0	10.3
9	10.9	4.5	7.6	13.6	9.4	11.4	16.0	9.1	12.2	14.1	7.2	10.6
10	12.0	4.6	8.1	15.7	9.1	12.2	16.2	8.8	12.2	14.2	7.7	10.9
11	10.7	4.8	7.8	15.3	8.8	12.1	17.4	8.3	12.5	13.0	8.8	11.2
12	9.6	5.1	7.7	14.8	8.8	11.9	17.1	9.0	12.8	14.1	10.0	11.5
13	10.7	5.1	7.7	15.1	9.8	12.3	15.4	9.3	12.1	13.6	9.6	11.1
14	9.1	5.9	7.6	15.8	8.4	12.0	15.1	9.1	12.4	12.8	8.2	10.2
15	8.7	5.8	7.1	13.9	9.2	11.6	16.7	9.8	13.1	14.0	8.5	10.7
16	12.0	4.7	8.1	14.8	10.0	12.2	17.8	9.2	13.0	13.3	6.8	10.0
17	11.6	5.1	8.4	16.1	11.0	13.3	17.0	9.0	12.7	11.5	7.7	9.4
18	12.4	4.8	8.6	13.5	10.8	12.0	14.7	10.1	12.1	9.7	6.1	7.5
19	12.5	4.7	8.6	15.8	8.7	12.2	15.6	8.9	11.9	11.1	4.7	7.4
20	11.7	5.3	8.7	16.2	10.3	13.1	14.3	9.3	11.9	11.9	6.3	8.7
21	11.0	6.6	8.8	16.4	9.5	12.8	15.0	10.4	12.5	12.2	4.8	8.4
22	11.5	6.9	9.1	16.7	9.3	12.8	15.7	9.2	11.9	13.1	6.3	9.3
23	12.6	5.0	8.7	16.5	9.3	12.7	15.6	9.1	11.9	12.7	6.9	9.5
24	13.0	5.5	9.3	16.6	9.1	12.8	15.4	9.0	12.1	13.2	6.5	9.3
25	12.1	5.8	9.0	15.1	9.7	12.5	13.9	10.1	11.9	9.7	6.3	8.2
26	11.9	6.4	9.2	15.9	9.3	12.4	15.1	9.2	11.6	8.3	5.4	6.7
27	10.5	7.3	9.0	16.0	9.3	12.6	15.4	10.2	12.5	8.9	2.5	5.6
28	10.2	6.7	8.4	15.1	10.1	12.4	15.2	9.3	12.3	10.8	3.2	6.8
29	13.6	5.9	9.5	15.5	10.6	12.4	16.0	8.3	12.1	11.9	4.2	8.0
30	13.9	7.3	10.6	17.1	9.5	13.0	16.3	8.3	12.1	11.7	5.0	8.3
31	---	---	---	16.0	9.5	12.8	16.2	8.3	12.0	---	---	---
MONTH	13.9	3.4	8.3	17.1	7.4	12.1	17.8	8.3	12.4	16.6	2.5	9.7

## GUNNISON RIVER BASIN

**09112200 EAST RIVER BELOW CEMENT CREEK NEAR CRESTED BUTTE, CO--Continued**  
**(National Water-Quality Assessment Program station)**

OXYGEN, DISSOLVED (MG/L), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	9.2	8.0	8.6	9.6	8.5	9.0	---	---	---	---	---	---
2	9.4	7.7	8.5	10.7	9.3	9.9	---	---	---	---	---	---
3	9.4	7.5	8.4	10.8	9.4	10.3	---	---	---	---	---	---
4	8.8	8.0	8.5	10.9	9.5	10.3	---	---	---	---	---	---
5	9.6	8.2	8.9	10.9	9.4	10.3	---	---	---	---	---	---
6	10.3	7.9	9.0	10.6	9.4	10.0	---	---	---	---	---	---
7	9.8	7.8	8.8	10.2	9.2	9.7	---	---	---	---	---	---
8	9.4	7.8	8.5	10.6	9.0	9.8	---	---	---	---	---	---
9	9.7	7.7	8.7	10.3	9.4	9.9	---	---	---	---	---	---
10	9.4	7.6	8.5	10.9	9.9	10.5	---	---	---	---	---	---
11	9.4	7.5	8.4	11.1	10.3	10.7	---	---	---	---	---	---
12	9.0	7.9	8.4	10.8	9.9	10.4	---	---	---	---	---	---
13	9.3	8.0	8.5	10.2	8.8	9.6	---	---	---	---	---	---
14	9.9	7.9	8.9	10.4	8.7	9.5	---	---	---	---	---	---
15	9.7	7.7	8.7	10.6	9.1	9.8	---	---	---	---	---	---
16	9.5	7.8	8.6	10.6	9.2	9.9	---	---	---	---	---	---
17	9.4	7.7	8.6	10.7	9.2	9.9	---	---	---	---	---	---
18	9.5	7.7	8.6	10.9	9.4	10.1	---	---	---	---	---	---
19	9.4	8.1	8.7	10.7	9.3	10.1	---	---	---	---	---	---
20	10.4	8.3	9.3	10.7	9.4	10.0	---	---	---	---	---	---
21	10.2	8.1	9.1	10.8	9.2	10.1	---	---	---	---	---	---
22	9.6	8.3	8.9	10.4	9.4	10.0	---	---	---	---	---	---
23	10.7	8.9	9.8	10.6	9.4	10.0	---	---	---	---	---	---
24	10.7	8.7	9.7	10.8	9.4	10.2	---	---	---	---	---	---
25	10.6	8.6	9.6	10.7	9.3	10.2	---	---	---	---	---	---
MONTH	10.7	7.5	8.9	---	---	---	---	---	---	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	10.6	8.7	9.4	10.2	8.9	9.5
2	---	---	---	---	---	---	10.4	8.9	9.4	10.1	8.6	9.5
3	---	---	---	---	---	---	10.0	9.0	9.3	10.0	8.7	9.5
4	---	---	---	---	---	---	10.6	9.1	9.7	10.3	8.3	9.4
5	---	---	---	---	---	---	10.5	9.0	9.6	10.5	8.4	9.5
6	---	---	---	---	---	---	10.7	9.2	9.7	10.5	8.5	9.6
7	---	---	---	---	---	---	10.4	9.2	9.6	10.4	8.4	9.5
8	---	---	---	---	---	---	10.2	9.0	9.5	10.3	8.2	9.4
9	---	---	---	---	---	---	10.2	9.0	9.6	10.2	8.5	9.4
10	---	---	---	---	---	---	10.1	9.0	9.6	10.3	8.4	9.4
11	---	---	---	---	---	---	10.1	9.3	9.7	10.4	8.1	9.3
12	---	---	---	---	---	---	10.2	8.6	9.5	9.8	8.2	9.0
13	---	---	---	---	---	---	10.0	9.3	9.6	10.0	8.2	9.0
14	---	---	---	---	---	---	10.3	8.8	9.6	9.9	8.2	9.1
15	---	---	---	---	---	---	10.4	8.5	9.5	10.2	8.1	9.1
16	---	---	---	---	---	---	10.3	8.3	9.2	9.9	8.3	8.9
17	---	---	---	---	---	---	10.0	8.7	9.4	9.5	8.2	8.9
18	---	---	---	---	---	---	10.2	9.3	9.7	9.8	7.8	8.9
19	---	---	---	---	---	---	10.4	8.9	9.6	9.3	7.7	8.6
20	---	---	---	---	---	---	10.4	9.3	9.8	9.6	8.1	8.9
21	---	---	---	---	---	---	10.4	8.4	9.4	9.8	7.8	8.9
22	---	---	---	---	---	---	10.4	8.6	9.4	9.7	7.9	8.8
23	---	---	---	---	---	---	10.2	8.0	9.1	9.6	8.2	8.9
24	---	---	---	---	---	---	10.0	8.0	8.9	9.9	9.0	9.4
25	---	---	---	---	---	---	9.7	8.6	9.1	9.8	9.1	9.5
26	---	---	---	---	---	---	10.3	8.6	9.6	9.9	9.3	9.7
27	---	---	---	11.0	9.1	9.7	10.0	8.6	9.4	10.0	9.2	9.6
28	---	---	---	10.6	8.5	9.3	10.4	9.1	9.8	10.1	8.8	9.4
29	---	---	---	10.4	8.6	9.3	10.5	8.8	9.7	10.1	7.9	9.1
30	---	---	---	10.6	8.6	9.3	10.3	8.5	9.4	9.8	7.3	8.6
31	---	---	---	10.6	8.6	9.4	---	---	---	8.5	7.2	7.9
MONTH	---	---	---	---	---	---	10.7	8.0	9.5	10.5	7.2	9.2

**09112200 EAST RIVER BELOW CEMENT CREEK NEAR CRESTED BUTTE, CO--Continued**  
**(National Water-Quality Assessment Program station)**

OXYGEN, DISSOLVED (MG/L), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	8.5	7.2	7.9	8.9	7.3	8.0	8.8	7.1	8.0	9.7	7.6	8.4
2	8.9	7.2	8.0	8.8	7.5	8.0	8.8	7.3	7.9	9.1	7.3	8.1
3	8.8	7.1	8.0	8.8	7.3	7.9	8.6	7.5	8.0	9.7	7.5	8.4
4	8.9	7.1	7.9	8.5	7.3	7.9	8.7	7.5	8.1	10.0	7.6	8.7
5	8.7	7.2	8.0	8.5	7.4	7.9	9.3	7.3	8.2	9.7	7.8	8.5
6	8.8	7.2	8.0	8.5	7.2	7.8	9.2	7.3	8.2	9.3	8.2	8.8
7	9.1	7.3	8.2	8.5	7.2	7.8	9.1	7.4	8.2	10.0	7.4	8.7
8	9.0	7.5	8.2	8.4	7.5	7.9	9.1	7.7	8.3	10.1	7.4	8.6
9	8.9	7.6	8.2	8.4	7.4	7.9	9.2	7.5	8.3	9.8	7.2	8.3
10	8.9	7.3	8.1	8.4	7.1	7.7	9.3	7.4	8.3	9.2	7.1	8.1
11	8.9	7.6	8.2	8.5	7.2	7.8	9.4	7.2	8.2	8.8	7.0	7.9
12	8.9	7.9	8.3	8.5	7.2	7.7	9.2	7.3	8.1	8.4	7.1	7.7
13	9.2	8.1	8.6	8.2	7.1	7.6	9.1	7.6	8.3	8.6	7.1	7.8
14	9.2	8.4	8.7	8.4	6.9	7.6	9.2	7.4	8.2	9.1	7.4	8.2
15	9.1	8.4	8.8	8.2	7.2	7.6	8.9	7.3	8.0	8.9	7.0	8.0
16	9.5	7.8	8.6	8.0	7.0	7.5	9.1	7.1	8.0	9.8	7.7	8.5
17	9.4	7.8	8.5	7.8	7.2	7.5	9.1	7.1	8.0	9.5	7.8	8.7
18	9.4	7.6	8.5	8.3	7.3	7.8	8.8	7.6	8.1	10.4	9.0	9.6
19	9.4	7.6	8.4	8.5	7.2	7.8	9.2	7.5	8.2	11.2	8.6	9.8
20	9.3	7.8	8.4	8.2	7.2	7.6	9.1	7.6	8.2	10.4	8.2	9.2
21	8.9	7.8	8.3	8.3	7.1	7.7	8.7	7.6	8.1	11.2	8.3	9.6
22	8.7	7.9	8.3	8.4	7.1	7.7	9.1	7.4	8.2	10.5	7.9	9.2
23	9.4	7.7	8.6	8.4	7.1	7.7	9.1	7.4	8.3	10.3	8.0	9.2
24	9.3	7.6	8.4	8.3	6.7	7.5	9.2	7.6	8.3	10.7	7.9	9.2
25	9.2	7.8	8.4	8.2	7.5	7.8	8.8	7.8	8.2	---	---	---
MONTH	9.5	7.1	8.3	9.1	6.7	7.8	9.6	6.8	8.1	---	---	---

## GUNNISON RIVER BASIN

**09112500 EAST RIVER AT ALMONT, CO**

LOCATION.--Lat 38°39'52", long 106°50'51", in NW<sup>1/4</sup>SE<sup>1/4</sup> sec.22, T.51 N., R.1 E., Gunnison County, Hydrologic Unit 14020001, on left bank at Almont, 200 ft upstream from bridge on State Highway 135, and 400 ft upstream from confluence with Taylor River.

DRAINAGE AREA.--289 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--April to October 1905, July 1910 to September 1922, October 1934 to current year. Monthly discharges only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1313: 1911. WSP 1733: 1952. WSP 1924: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 8,006.29 ft above sea level. Apr. 16 to Sept. 30, 1905, and July 27, 1910 to Apr. 30, 1922, nonrecording gages at bridge 200 ft downstream, at different datums. Oct. 1, 1934 to Sept. 22, 1954, water-stage recorder at present site at datum 2.00 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 7,400 acres upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	179	153	e96	e74	68	74	91	626	1040	948	240	126
2	168	145	e98	e73	66	73	110	695	1150	918	230	123
3	163	119	e99	e73	69	72	125	773	1320	860	237	121
4	167	124	e98	e77	78	73	119	837	1530	836	238	119
5	165	125	e96	e78	82	74	121	1090	1710	825	217	114
6	153	135	e95	e78	75	74	137	1310	1970	766	226	102
7	160	139	e94	e76	68	69	165	1420	1990	723	245	108
8	160	127	e89	e77	71	69	213	1530	1900	669	234	100
9	154	131	e88	e77	71	68	285	1710	1800	628	224	87
10	155	132	e85	e78	76	69	329	1700	1790	607	210	79
11	155	125	e83	e77	76	70	367	1740	1840	583	198	80
12	154	148	e82	e77	80	72	334	2000	1780	530	184	80
13	179	145	e80	e75	83	73	318	2280	1720	481	176	85
14	166	142	e76	e74	86	72	258	2420	1710	457	171	85
15	158	136	e69	e73	87	70	240	2350	1900	446	167	85
16	154	136	e77	e71	82	73	248	2520	1740	455	157	85
17	153	138	e79	e68	81	73	262	2770	1640	469	151	85
18	153	123	e73	e66	80	71	248	2630	1550	473	145	85
19	145	122	e64	e68	78	67	217	2590	1470	438	149	85
20	136	127	e58	e70	78	67	201	2700	1390	409	146	99
21	139	125	e62	e66	86	70	193	2200	1610	384	145	121
22	140	127	e59	e74	88	72	179	2050	1670	369	154	119
23	129	120	e55	75	79	78	180	1940	1460	362	160	129
24	130	111	e52	74	79	77	239	1690	1310	324	153	131
25	135	119	e56	72	82	75	431	1500	1230	292	146	124
26	136	125	e60	68	83	70	552	1370	1130	274	143	127
27	133	116	e61	69	77	72	643	1200	1170	263	151	130
28	129	92	e62	79	72	74	654	1090	1140	251	144	132
29	132	e100	e67	72	72	76	545	1000	1010	279	138	139
30	142	e96	e69	69	---	79	540	981	965	266	130	135
31	143	---	e75	69	---	84	---	954	---	249	128	---
TOTAL	4665	3803	2357	2267	2253	2250	8544	51666	45635	15834	5537	3220
MEAN	150	127	76.0	73.1	77.7	72.6	285	1667	1521	511	179	107
MAX	179	153	99	79	88	84	654	2770	1990	948	245	139
MIN	129	92	52	66	66	67	91	626	965	249	128	79
AC-FT	9250	7540	4680	4500	4470	4460	16950	102500	90520	31410	10980	6390

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1996, BY WATER YEAR (WY)

MEAN	117	95.4	73.4	62.3	59.5	67.4	248	1026	1386	573	236	130
MAX	279	172	128	102	90.4	137	670	1978	2670	2037	659	271
(WY)	1912	1987	1985	1985	1962	1986	1936	1936	1920	1957	1995	1965
MIN	56.3	47.8	42.0	25.5	28.7	43.1	77.2	222	289	93.5	25.0	52.4
(WY)	1978	1978	1977	1940	1940	1976	1964	1977	1977	1977	1913	1977

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1911 - 1996

ANNUAL TOTAL	212823	148031										
ANNUAL MEAN	583	404										
HIGHEST ANNUAL MEAN												
LOWEST ANNUAL MEAN												
HIGHEST DAILY MEAN	4020	Jun 18	2770	May 17								
LOWEST DAILY MEAN	39	Feb 15	e52	Dec 24								
ANNUAL SEVEN-DAY MINIMUM	44	Jan 18	57	Dec 20								
INSTANTANEOUS PEAK FLOW			3040	May 20								
INSTANTANEOUS PEAK STAGE				7.10	May 20							
ANNUAL RUNOFF (AC-FT)	422100		293600							246500		
10 PERCENT EXCEEDS	2040		1460							1060		
50 PERCENT EXCEEDS	153		135							107		
90 PERCENT EXCEEDS	52		71							55		

e-Estimated.

a-Site and datum then in use, from rating curve extended above 3000 ft<sup>3</sup>/s.

b-Maximum gage height 8.41 ft, Jun 18, 1995, present datum.

## 09112500 EAST RIVER AT ALMONT, CO--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD--October 1990 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC COND- DUCT- ANCE (US/CM)	pH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	COLI- FORM, BIO- CHEM- ICAL, 5 DAY (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
OCT 26...	1345	130	303	8.1	6.0	29	9.6	2.0	K7	
DEC 07...	0950	96	305	8.2	1.0	0.2	10.6	<0.1	<1	
JAN 12...	0900	79	313	8.0	0.5	--	11.7	1.9	K1	
FEB 27...	1315	76	300	8.9	1.6	--	12.8	--	<1	
MAR 28...	1300	74	297	8.8	7.5	--	11.0	--	<1	
MAY 23...	1330	1910	167	8.0	8.0	5.8	9.2	0.6	K12	
JUL 17...	1815	486	253	8.5	16.5	0.3	7.0	0.6	38	
SEP 12...	1215	80	331	8.7	13.5	0.3	8.7	0.8	K14	
 E. COLI										
DATE	WATER WHOLE TOTAL UREASE (COL / 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CACO3)	MAGNE- SIUM, DIS- SOLVED (MG/L AS CACO3)	SODIUM, DIS- SOLVED (MG/L AS CACO3)	SODIUM AD- SORP- TION (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LILITY LAB (MG/L AS CACO3)		
OCT 26...	300	150	46	8.0	3.8	0.1	1.0	122		
DEC 07...	--	150	48	8.4	4.1	0.1	0.9	126		
JAN 12...	--	170	52	9.2	4.8	0.2	1.1	138		
MAR 28...	<1	150	46	8.0	5.1	0.2	1.0	125		
MAY 23...	K5	79	25	4.1	1.7	0.1	0.7	72		
JUL 17...	--	130	41	6.2	2.4	0.1	1.0	113		
SEP 12...	K7	160	50	8.1	4.1	0.1	1.2	147		
 SOLID SOLIDS, SOLIDS, SOLIDS, SOLIDS,										
DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	RESIDUE AT 180 DEG. C	SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLVED DIS- SOLVED (TONS PER AC-FT)	SOLVED DIS- SOLVED (TONS PER DAY)		
OCT 26...	31	0.9	0.2	7.0	--	171	0.23	60.2		
DEC 07...	31	1.1	0.2	7.2	--	177	0.24	46.0		
JAN 12...	35	1.3	0.2	7.7	--	195	0.26	41.8		
MAR 28...	33	1.7	0.2	6.5	--	177	0.24	35.1		
MAY 23...	12	0.4	<0.1	5.6	--	93	0.13	480		
JUL 17...	18	0.6	<0.1	6.8	--	144	0.20	189		
SEP 12...	27	1.0	0.1	8.1	196	188	0.27	42.3		

K-Based on non-ideal colony count.

## GUNNISON RIVER BASIN

**09112500 EAST RIVER AT ALMONT, CO--Continued**

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO <sub>2</sub> +NO <sub>3</sub> DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)			
OCT 26...	<0.01	0.08	<0.015	<0.2	<0.2	0.03	<0.01	<0.01			
DEC 07...	<0.01	0.11	<0.015	<0.2	<0.2	0.01	<0.01	<0.01			
JAN 12...	<0.01	0.16	<0.015	<0.2	<0.2	0.02	<0.01	<0.01			
FEB 27...	<0.01	<0.05	<0.015	<0.2	<0.2	0.01	<0.01	<0.01			
MAR 28...	0.02	<0.05	0.02	<0.2	<0.2	0.02	0.02	<0.01			
MAY 23...	<0.01	0.10	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01			
JUL 17...	<0.01	0.10	0.03	<0.2	<0.2	<0.01	<0.01	0.01			
SEP 12...	0.01	0.08	0.02	<0.2	<0.2	<0.01	<0.01	<0.01			
DATE	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, RECOV-ERABLE TOTAL (UG/L AS FE)	IRON, SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
OCT 26...	<10	--	--	--	<1	--	--	<1	1700	--	<1
MAR 28...	20	--	--	--	<1	--	--	<1	10	--	<1
MAY 23...	30	--	--	--	<1	--	--	1	570	--	<1
SEP 12...	<5	<1	86	<0.5	<1	<1	<3	<1	40	<3	<1
DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGANESE, TOTAL DIS-RECov-ERABLE (UG/L AS MN)	MANGANESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELENIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANADIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 26...	--	80	<10	<0.1	--	--	<1	<0.2	--	--	<10
MAR 28...	--	<10	4	<0.1	--	--	<1	<0.2	--	--	14
MAY 23...	--	30	5	<0.1	--	--	<1	<0.2	--	--	9
SEP 12...	5	<10	4	<0.1	<10	<1	<1	<1	210	<6	7

## GUNNISON RIVER BASIN

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**09112500 EAST RIVER AT ALMONT, CO--Continued**

## MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

		DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT-	TEMPER- ATURE		DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT-	TEMPER- ATURE		
DATE	TIME	PER SECOND	ANCE (US/CM)	WATER (DEG C)		DATE	TIME	PER SECOND	ANCE (US/CM)	WATER (DEG C)
OCT 05...	1400	163	298	7.0		JUL 10...	1453	596	247	15.5
MAY 21...	1335	2130	170	6.5		AUG 21...	1602	144	324	16.0

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

		DIS- CHARGE, INST. CUBIC FEET	SEDI- MENT, DIS- MENT, SUS-	SEDI- MENT, DIS- CHARGE, SUS-		DIS- CHARGE, INST. CUBIC FEET	SEDI- MENT, DIS- MENT, SUS-			
DATE	TIME	PER SECOND	PENDED (MG/L)	PENDED (T/DAY)		DATE	TIME	PER SECOND	PENDED (MG/L)	(T/DAY)
OCT 26...	1345	130	205	72	JUL 17...	1815	486	4	5.1	
MAY 23...	1330	1910	36	187	SEP 12...	1215	80	80	17	

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1994 TO SEPTMBER 1995

DATE	TIME	PER SECOND	DIS- CHARGE, INST. CUBIC FEET	SEDI- MENT, MENT, SUS-	SEDI- MENT, DIS- CHARGE, SUS-
SEP 20	1410	178		4	1 9
			(MG/L)	PENDED	PENDED (T/DAY)

## GUNNISON RIVER BASIN

**09113100 CASTLE CREEK ABOVE MOUTH NEAR BALDWIN, CO**

LOCATION.--Lat 38°46'09", long 107°05'02", T.15 S., R.87 W., Gunnison County, Hydrologic Unit 14020002, on left bank 1.5 mi upstream from mouth, and 25 mi northwest of Gunnison.

DRAINAGE AREA.--22.4 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1992 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 8,820 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions for irrigation of a few acres of hay meadows upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	e9.6	e8.4	e5.6	e5.2	e5.6	e10	63	73	72	27	8.8
2	4.3	e9.0	e8.0	e5.6	e5.0	e5.6	e14	67	81	66	26	7.9
3	3.4	e8.0	e7.8	e5.6	e4.8	e5.6	e13	68	97	64	28	7.3
4	3.4	e7.8	e7.8	e5.8	e5.2	e5.8	e12	78	118	65	26	7.1
5	11	e7.6	e7.8	e5.6	e5.8	e5.8	e12	91	142	66	24	8.3
6	15	e7.8	e7.8	e5.8	e5.8	e5.4	e13	85	158	64	23	14
7	15	e7.6	e7.8	e5.8	e5.6	e5.4	e15	96	149	59	22	12
8	13	e7.8	e7.6	e5.8	e5.6	e5.6	e17	128	155	54	20	8.4
9	12	e7.8	e7.4	e5.8	e5.6	e5.8	e19	128	151	52	19	7.7
10	12	e7.8	e7.2	e5.6	e5.6	e6.0	25	131	142	51	18	7.0
11	12	e7.4	e7.2	e5.6	e5.2	e6.2	31	149	140	50	18	6.7
12	13	e7.6	e7.2	e5.6	e5.2	e6.0	34	173	139	47	17	8.2
13	17	e7.6	e7.0	e5.6	e5.2	e5.8	37	166	121	45	17	10
14	13	e7.6	e6.2	e5.6	e5.6	e6.0	35	165	116	45	16	8.9
15	12	e7.4	e6.2	e5.8	e5.6	e6.2	35	190	116	43	16	9.2
16	12	e7.2	e6.6	e5.8	e5.6	e6.0	35	221	107	44	16	8.0
17	13	e7.4	e5.6	e5.2	e5.8	e6.0	38	216	114	48	15	8.3
18	12	e7.4	e5.2	e5.4	e5.8	e5.6	38	176	112	48	19	10
19	12	e7.4	e5.0	e5.6	e6.0	e5.4	35	193	110	44	20	12
20	12	e7.6	e5.2	e5.4	e7.2	e5.6	37	192	108	42	17	11
21	11	e7.6	e5.2	e5.4	e8.6	e6.2	31	160	162	39	16	9.2
22	e10	e7.6	e4.7	e5.8	e6.8	e7.8	31	163	155	37	17	8.5
23	e9.4	e7.6	e4.4	e6.0	e6.2	e7.4	31	125	117	35	19	20
24	e9.0	e8.0	e4.3	e6.4	e5.8	e6.6	41	103	96	34	16	13
25	e9.0	e8.2	e4.6	e5.8	e5.8	e6.4	58	86	83	33	15	10
26	e8.8	e8.4	e4.9	e4.8	e5.8	e6.2	60	77	79	32	15	9.3
27	e8.8	e8.2	e5.2	e4.9	e5.8	e6.4	62	68	83	31	13	10
28	e8.6	e9.2	e5.4	e5.6	e5.6	e7.0	61	63	78	31	12	9.9
29	e8.4	e9.0	e5.6	e5.8	e5.6	e7.4	55	61	72	34	12	9.2
30	e8.2	e8.4	e5.8	e5.6	---	e8.2	57	61	72	32	11	8.5
31	e8.8	---	e6.0	e5.2	---	e8.8	65	---	29	9.8	---	
TOTAL	322.5	237.6	195.1	173.9	167.4	193.8	992	3808	3446	1436	559.8	288.4
MEAN	10.4	7.92	6.29	5.61	5.77	6.25	33.1	123	115	46.3	18.1	9.61
MAX	17	9.6	8.4	6.4	8.6	8.8	62	221	162	72	28	20
MIN	3.4	7.2	4.3	4.8	4.8	5.4	10	61	72	29	9.8	6.7
AC-FT	640	471	387	345	332	384	1970	7550	6840	2850	1110	572

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1996, BY WATER YEAR (WY)

MEAN	9.00	6.71	5.70	5.25	5.40	6.20	17.7	89.2	156	86.7	32.8	12.2
MAX	11.1	7.92	6.30	5.95	5.77	7.42	33.1	123	210	175	61.1	17.0
(WY)	1994	1996	1994	1994	1996	1994	1996	1996	1995	1995	1995	1995
MIN	5.66	5.47	4.75	4.26	4.77	5.47	8.36	47.2	105	22.9	11.7	7.16
(WY)	1993	1993	1995	1995	1995	1993	1993	1995	1994	1994	1994	1994

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1993 - 1996

ANNUAL TOTAL	17053.6	11820.5	
ANNUAL MEAN	46.7	32.3	36.1
HIGHEST ANNUAL MEAN			46.3
LOWEST ANNUAL MEAN			24.6
HIGHEST DAILY MEAN	414	Jun 18	414
LOWEST DAILY MEAN	3.0	Jan 2	3.0
ANNUAL SEVEN-DAY MINIMUM	3.9	Jan 1	3.9
INSTANTANEOUS PEAK FLOW		359	982
INSTANTANEOUS PEAK STAGE		5.38	6.45
ANNUAL RUNOFF (AC-FT)	33830	23450	26180
10 PERCENT EXCEEDS	161	104	118
50 PERCENT EXCEEDS	9.0	9.5	8.3
90 PERCENT EXCEEDS	4.6	5.6	5.1

e-Estimated.

a-Also occurred Oct 4.

## 09114500 GUNNISON RIVER NEAR GUNNISON, CO

LOCATION.--Lat 38°32'31", long 106°56'57", in NW<sup>1/4</sup>NW<sup>1/4</sup> sec.2, T.49 N., R.1 W., Gunnison County, Hydrologic Unit 14020002, on right bank 0.7 mi downstream from Antelope Creek and 1.2 mi west of Gunnison.

DRAINAGE AREA.--1,012 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1910 to December 1928, October 1944 to current year. Monthly discharges only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1313: 1911, 1916.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 7,655 ft above sea level, from topographic map. Nov. 25, 1910 to Dec. 31, 1928, nonrecording gages (supplementary water-stage recorder Apr. 28, 1916 to June 17, 1918) at bridge about 0.6 mi downstream at various datums. Oct. 1, 1944 to July 28, 1970, water-stage recorder at sites 0.4 mi upstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow regulated by Taylor Park Reservoir (station 09108500), 37 mi upstream from station. Diversions for irrigation of about 22,000 acres upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	793	442	339	e310	e275	279	358	1570	1500	1740	835	e630
2	766	445	325	e300	e275	276	438	1640	1630	1620	821	e620
3	741	406	322	e295	e265	270	528	1770	1830	1510	829	e620
4	731	369	316	e310	e255	271	480	1850	2050	1440	848	e620
5	723	370	340	e318	e270	272	471	2210	2240	1460	831	e610
6	702	381	337	e322	e285	276	507	2400	2580	1420	814	e600
7	688	398	321	e315	e290	258	570	2540	2660	1340	860	e610
8	676	371	321	e325	e285	269	673	2640	2600	1290	851	e620
9	677	355	309	e315	e280	258	897	2870	2510	1250	848	e600
10	663	375	298	e315	e270	261	996	2840	2540	1240	830	e570
11	663	350	296	e315	e265	264	1040	2890	2960	1210	810	e560
12	662	376	332	e320	e260	259	969	3240	3020	1140	796	e570
13	675	396	336	e310	e260	259	949	3640	2940	1100	771	e580
14	679	394	334	e315	e275	259	802	3840	2890	1060	757	e580
15	672	379	291	e328	e290	259	754	3880	3190	1060	734	e560
16	663	370	283	e320	e285	263	781	4150	3090	1070	731	e560
17	618	377	300	e315	e285	266	830	4640	3070	1040	714	e550
18	578	357	322	e320	e280	266	811	4310	2770	1070	707	e560
19	527	338	282	e315	e295	262	751	4250	2550	1080	705	e580
20	477	347	e240	e328	e315	251	686	4360	2340	985	e690	e600
21	440	343	e260	e305	e340	244	692	3730	2670	927	e690	e600
22	431	343	e248	e315	e320	252	657	3460	2910	892	e730	e580
23	424	344	e238	e315	e305	283	720	3130	2610	869	e720	e610
24	410	321	e228	e300	e285	282	928	2540	2310	842	e690	e620
25	407	325	e235	e285	e280	270	1440	2250	2190	818	e680	636
26	409	354	e242	e270	e260	248	1680	2130	2050	821	e700	639
27	410	342	e250	e295	e265	253	1800	1880	2060	811	e680	633
28	410	288	e270	e295	e265	267	1670	1710	2070	807	e640	620
29	410	336	e305	e300	285	307	1400	1580	1900	831	e640	623
30	414	342	e290	e295	---	374	1400	1480	1780	833	e640	619
31	418	---	e310	e280	---	398	---	1440	---	822	e640	---
TOTAL	17957	10934	9120	9566	8165	8476	26678	86860	73510	34398	23232	17980
MEAN	579	364	294	309	282	273	889	2802	2450	1110	749	599
MAX	793	445	340	328	340	398	1800	4640	3190	1740	860	639
MIN	407	288	228	270	255	244	358	1440	1500	807	640	550
AC-FT	35620	21690	18090	18970	16200	16810	52920	172300	145800	68230	46080	35660

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1996, BY WATER YEAR (WY)

MEAN	403	299	236	210	203	250	613	1845	2528	1297	744	550
MAX	805	614	616	395	365	582	1381	3605	6074	4621	1510	908
(WY)	1969	1968	1966	1966	1971	1986	1962	1914	1918	1957	1957	1985
MIN	186	162	128	119	111	117	214	283	425	288	317	221
(WY)	1978	1964	1963	1945	1955	1964	1964	1977	1977	1977	1977	1924

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1911 - 1996
ANNUAL TOTAL	477868	326876	
ANNUAL MEAN	1309	893	766
HIGHEST ANNUAL MEAN			1278
LOWEST ANNUAL MEAN			256
HIGHEST DAILY MEAN	6720	Jun 18	1977
LOWEST DAILY MEAN	175	Jan 18	80
ANNUAL SEVEN-DAY MINIMUM	188	Jan 13	Dec 27 1962
INSTANTANEOUS PEAK FLOW		4990 May 18	a11400 Jun 13 1918
INSTANTANEOUS PEAK STAGE		4.33 May 18	b6.74 Jul 1 1957
ANNUAL RUNOFF (AC-FT)	947900	648400	555300
10 PERCENT EXCEEDS	4270	2360	1920
50 PERCENT EXCEEDS	535	580	394
90 PERCENT EXCEEDS	208	270	179

e-Estimated.

a-Site and datum then in use, from rating curve extended above 5000 ft<sup>3</sup>/s, gage height, 4.05 ft.  
b-Site and datum then in use.

## GUNNISON RIVER BASIN

**09114500 GUNNISON RIVER NEAR GUNNISON, CO--Continued**  
**WATER-QUALITY RECORDS**

PERIOD OF RECORD--April 1995 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CONDUC-TION (US/CM)	pH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR-BID- ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM- ICAL, 5 DAY (MG/L)	COLI- FORM, BIO-FECAL, UM-MF (COLS./ 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
OCT 27...	1210	410	212	8.3	5.5	0.50	9.4	1.5	<1	110	32	6.8
DEC 08...	0950	322	226	8.2	0.5	0.50	10.5	--	K5	110	34	7.3
JAN 10...	1500	321	198	7.6	0.0	--	11.1	2.0	K1	100	30	6.6
FEB 28...	1545	242	201	7.6	1.0	--	11.2	--	<1	90	26	6.1
APR 02...	0825	361	213	8.4	3.0	--	10.2	--	K9	93	27	6.1
MAY 24...	1025	2570	152	8.2	5.0	5.6	10.1	0.7	K58	70	21	4.2
JUL 19...	0640	1100	220	8.2	10.5	1.4	7.9	1.2	170	100	31	6.2
SEP 12...	1515	521	189	8.6	14.5	--	8.1	0.8	23	90	27	5.5
<hr/>												
DATE		SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION (MG/L AS K)	POTAS- SIUM, DIS- SOLVED (MG/L AS CACO3)	ALKA- LINTY LAB (MG/L AS Caco3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, DIS- SOLVED (TONS PER DAY)
OCT 27...		3.0	0.1	0.9	98	14	0.6	0.2	8.4	125	0.17	138
DEC 08...		3.3	0.1	0.8	102	16	0.7	0.2	8.8	132	0.18	115
JAN 10...		3.3	0.1	0.8	94	14	0.7	0.2	9.1	121	0.16	105
FEB 28...		3.5	0.2	1.0	93	13	0.8	0.2	9.4	116	0.16	75.6
APR 02...		3.6	0.2	1.8	91	15	1.3	0.2	9.1	119	0.16	116
MAY 24...		2.1	0.1	0.8	69	9.2	0.4	<0.1	8.0	87	0.12	607
JUL 19...		3.1	0.1	1.1	102	12	0.6	0.1	9.7	125	0.17	373
SEP 12...		2.6	0.1	0.9	87	11	0.5	0.1	8.2	108	0.15	152
<hr/>												
DATE		NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + MONIA + ORGANIC ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + MONIA + ORGANIC ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)
OCT 27...		<0.01	<0.05	<0.015	<0.2	<0.2	0.02	0.01	<0.01			
DEC 08...		<0.01	<0.05	<0.015	<0.2	<0.2	0.01	<0.01	<0.01			
JAN 10...		<0.01	<0.015	<0.015	<0.2	<0.2	<0.01	0.01	<0.01			
FEB 28...		<0.01	<0.05	<0.015	<0.2	<0.2	0.01	<0.01	<0.01			
APR 02...		0.01	0.05	0.03	0.2	<0.2	--	0.03	0.03			
MAY 24...		<0.01	0.08	0.02	<0.2	<0.2	0.02	<0.01	<0.01			
JUL 19...		<0.01	0.09	0.03	<0.2	<0.2	<0.01	--	0.01			
SEP 12...		<0.01	0.07	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01			

K-Based on non-ideal colony count.

**09114500 GUNNISON RIVER NEAR GUNNISON, CO--Continued**

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	CADMIUM DIS- SOLVED (UG/L AS CD)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	ZINC, DIS- SOLVED (UG/L AS ZN)
	OCT 27...	<10	<1	<1	160	<1	30
APR 02...	<10	<1	<1	270	<1	60	<3
MAY 24...	10	<1	<1	580	<1	40	<3
SEP 12...	<5	<1	<1	80	<1	20	<3

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
		OCT 06...	0835	700	186	4.0	JUL 18...	1005	1070
APR 10...	1030	945	184	3.0	AUG 20...	0757	691	188	10.0
MAY 21...	0838	3900	143	4.0					

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
		OCT 27...	1210	410	4	4.4	JUL 19...	0640	1100
MAY 24...	1025	2570	35	246	SEP 12...	1515	521	1	2.0

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
SEP 21...	1545		762	5 10

## GUNNISON RIVER BASIN

## 09115500 TOMICHI CREEK AT SARGENTS, CO

LOCATION.--Lat 38°24'42", long 106°25'20", in SW<sup>1/4</sup>SW<sup>1/4</sup> sec.21, T.48 N., R.5 E., Saguache County, Hydrologic Unit 14020003, on right bank 300 ft from U.S. Highway 50, 0.5 mi downstream from Marshall Creek, and 0.8 mi south of Sargent.

DRAINAGE AREA.-- 149 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1916 to September 1922, October 1937 to September 1972, October 1992 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1313: 1922(M). WRD Colo. 1967: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 8,416 ft above sea level, from topographic map. May 12 to Oct. 5, 1917, nonrecording gage. Oct. 6, 1917 to Sept. 30, 1922, water-stage recorder, at railroad bridge 1,000 ft upstream at different datum. Apr. 18, 1938 to Sept. 9, 1953, water-stage recorder at present site at datum 1.0 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 1,900 acres upstream from station. Larkspur ditch diverts water upstream from station to Arkansas River basin. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	39	e35	e48	e37	e49	e64	132	185	75	27	25
2	43	38	e36	e47	e36	e49	e78	138	186	73	27	25
3	42	e35	e36	e47	e38	e50	e94	154	192	65	29	25
4	43	e32	e37	e47	e42	e48	e110	179	190	65	29	25
5	43	e34	e37	e47	e45	e48	e92	207	192	64	27	26
6	43	e36	e37	e45	e47	e48	e82	232	196	60	27	26
7	44	e36	e36	e45	e50	e48	e88	251	187	57	27	27
8	43	e35	e35	e46	e49	e47	e110	270	181	56	27	26
9	41	e34	e35	e46	e48	e47	e148	293	182	62	27	25
10	40	e33	e35	e47	e50	e50	132	292	171	56	27	26
11	40	e34	e36	e46	e51	e52	115	299	162	49	27	26
12	40	e35	e37	e45	e52	e52	104	332	157	41	27	27
13	45	e35	e37	e45	e52	e51	95	365	155	36	27	27
14	41	e33	e36	e45	e51	e50	78	384	161	35	26	27
15	40	e32	e34	e45	e52	e50	75	392	157	37	25	29
16	39	e32	e38	e45	e50	e50	91	417	146	40	26	26
17	39	e33	e39	e44	e48	e49	89	443	128	38	26	26
18	38	e34	e39	e44	e48	e49	80	445	119	47	26	27
19	38	e33	e39	e41	e49	e49	81	449	109	46	27	28
20	38	e33	e39	e42	e49	e49	68	462	102	37	27	28
21	38	e33	e43	e41	e50	e49	66	427	120	34	27	28
22	38	e32	e43	e42	e70	e50	68	396	157	30	28	26
23	38	e32	e38	e43	e66	e58	94	373	115	28	27	27
24	40	e32	e37	e41	e56	e56	132	338	98	28	27	26
25	42	e32	e39	e41	e52	e49	165	306	86	28	27	26
26	43	e32	e41	e39	e50	e48	164	294	88	30	28	26
27	39	e31	e45	e36	e50	e48	173	265	103	27	27	26
28	39	e31	e46	e36	e50	e50	160	245	110	28	27	26
29	39	e32	e48	e40	e50	e51	131	226	94	35	26	26
30	38	e32	e48	e37	---	e54	127	214	79	35	25	27
31	38	---	e48	e37	---	e58	---	196	---	33	26	---
TOTAL	1258	1005	1209	1340	1438	1556	3154	9416	4308	1375	833	791
MEAN	40.6	33.5	39.0	43.2	49.6	50.2	105	304	144	44.4	26.9	26.4
MAX	46	39	48	48	70	58	173	462	196	75	29	29
MIN	38	31	34	36	36	47	64	132	79	27	25	25
AC-FT	2500	1990	2400	2660	2850	3090	6260	18680	8540	2730	1650	1570

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1917 - 1996, BY WATER YEAR (WY)

MEAN	31.5	27.7	23.6	21.9	22.4	27.8	68.7	201	203	66.5	39.7	29.3
MAX	48.9	38.0	39.0	43.2	49.6	50.3	139	382	588	255	128	59.5
(WY)	1971	1994	1996	1996	1996	1972	1962	1958	1957	1957	1957	1957
MIN	18.8	17.6	13.3	10.7	10.9	15.0	34.4	50.4	19.8	19.5	13.7	13.5
(WY)	1956	1967	1967	1967	1967	1970	1967	1954	1954	1940	1950	1950

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1917 - 1996
ANNUAL TOTAL	38861	27683	
ANNUAL MEAN	106	75.6	63.7
HIGHEST ANNUAL MEAN			122
LOWEST ANNUAL MEAN			26.8
HIGHEST DAILY MEAN	838	Jun 18	1967
LOWEST DAILY MEAN	e11	Jan 1	Nov 16 1920
ANNUAL SEVEN-DAY MINIMUM	14	Jan 11	Sep 5 1959
INSTANTANEOUS PEAK FLOW		486 May 20	Jun 18 1995
INSTANTANEOUS PEAK STAGE		2.97 May 20	b4.03 Jun 18 1995
ANNUAL RUNOFF (AC-FT)	77080	54910	46160
10 PERCENT EXCEEDS	295	180	156
50 PERCENT EXCEEDS	43	44	30
90 PERCENT EXCEEDS	16	27	18

e-Estimated.

a-Also occurred Aug 30, Sep 1-4, 9.

b-Maximum gage height for period of record, 4.05 ft, Jun 16, 1917, and Jun 9, 1921, site and datum then in use.

**09118450 COCHETOPA CREEK BELOW ROCK CREEK, NEAR PARLIN, CO**

LOCATION.--Lat 38°20'08", long 106°46'18", in SW<sup>1/4</sup>NE<sup>1/4</sup> sec.17, T.47 N., R.2 E. Saguache County, Hydrologic Unit 14020003, on left bank 0.75 mi downstream from Rock Creek and 12 mi southeast of Parlin.

DRAINAGE AREA.--334 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1981 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 8,470 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions for irrigation of hay meadows upstream from station. Transmountain diversion by Tarbell ditch exports water upstream from station to Saguache Creek, since 1913. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	32	e36	e19	e16	e13	67	68	17	23	13	15
2	45	33	e36	e19	e17	e13	84	73	21	22	13	15
3	44	31	e37	e20	e16	e13	102	82	20	22	18	16
4	43	33	e36	e20	e16	e14	85	90	15	19	18	15
5	44	33	e35	e20	e19	e14	64	91	13	19	15	15
6	41	31	e34	e19	e18	e13	64	105	14	21	14	16
7	42	30	e33	e20	e18	e13	74	91	15	19	13	17
8	38	30	e32	e20	e18	e13	88	86	15	18	15	11
9	36	29	e31	e19	e19	e14	123	78	15	20	18	12
10	38	31	e31	e19	e18	e15	123	73	16	25	16	13
11	38	38	e30	e18	e18	e16	103	71	17	32	14	15
12	36	60	e28	e18	e18	e17	69	77	19	29	12	14
13	38	41	e24	e18	e18	e16	61	76	18	22	19	16
14	36	36	e22	e19	e18	e16	44	76	28	15	22	17
15	35	35	e21	e19	e19	e17	43	75	30	16	21	20
16	36	36	e21	e19	e19	e17	51	79	33	29	23	16
17	34	34	e20	e17	e19	e17	52	81	26	23	18	13
18	33	32	e17	e17	e19	e16	50	69	20	33	17	15
19	31	31	e17	e18	e19	e16	49	64	15	27	17	15
20	31	32	e17	e18	e22	e19	46	62	14	22	15	14
21	32	30	e18	e17	e30	e24	44	52	20	18	14	13
22	34	32	e17	e19	e23	e25	42	52	30	15	13	13
23	32	31	e15	e18	e19	e26	43	48	28	14	14	14
24	33	29	e15	e18	e18	e33	59	46	21	16	14	14
25	34	31	e16	e17	e16	e39	91	46	20	19	17	14
26	33	33	e17	e15	e16	e40	99	47	27	19	16	14
27	33	e31	e17	e15	e15	37	108	45	32	17	16	15
28	31	e33	e18	e18	e14	41	106	36	35	13	16	15
29	31	e36	e19	e19	e14	44	74	32	28	17	16	14
30	32	e37	e19	e18	---	44	70	29	24	15	15	15
31	31	---	e20	e17	---	51	---	24	---	14	15	---
TOTAL	1123	1011	749	567	529	706	2178	2024	646	633	497	441
MEAN	36.2	33.7	24.2	18.3	18.2	22.8	72.6	65.3	21.5	20.4	16.0	14.7
MAX	48	60	37	20	30	51	123	105	35	33	23	20
MIN	31	29	15	15	14	13	42	24	13	13	12	11
AC-FT	2230	2010	1490	1120	1050	1400	4320	4010	1280	1260	986	875

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1996, BY WATER YEAR (WY)

MEAN	36.5	30.8	23.4	20.6	21.2	31.6	56.5	87.2	94.6	56.1	63.2	44.0
MAX	72.6	49.9	39.5	36.6	33.4	52.3	135	413	240	130	144	90.8
(WY)	1983	1983	1985	1984	1986	1985	1987	1984	1984	1995	1984	1982
MIN	17.7	15.0	10.3	11.1	10.5	12.5	27.9	18.4	21.5	20.4	16.0	14.7
(WY)	1990	1993	1982	1982	1982	1982	1990	1989	1989	1996	1996	1996

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1981 - 1996
ANNUAL TOTAL	21983	11104	
ANNUAL MEAN	60.2	30.3	47.4
HIGHEST ANNUAL MEAN			106
LOWEST ANNUAL MEAN			24.8
HIGHEST DAILY MEAN	283	Jun 18	a123
LOWEST DAILY MEAN	11	Jan 3	11 Sep 8
ANNUAL SEVEN-DAY MINIMUM	14	Jan 30	13 Mar 1
INSTANTANEOUS PEAK FLOW			185 Apr 10
INSTANTANEOUS PEAK STAGE			2.89 Apr 10
ANNUAL RUNOFF (AC-FT)	43600	22020	1120 May 23 1984
10 PERCENT EXCEEDS	129	64	4.49 May 23 1984
50 PERCENT EXCEEDS	41	20	34320
90 PERCENT EXCEEDS	16	14	92
			8.9 Feb 7 1982
			8.9 Feb 7 1982
			33
			16

e-Estimated.

a-Also occurred Apr 10.

## GUNNISON RIVER BASIN

**09119000 TOMICHI CREEK AT GUNNISON, CO**

LOCATION.--Lat 38°31'18", long 106°56'25", in NE<sup>1/4</sup>SW<sup>1/4</sup> sec.11, T.49 N., R.1 W., Gunnison County, Hydrologic Unit 14020003, on right bank 300 ft downstream from highway bridge, 1.8 mi southwest of Post Office in Gunnison, and 2.0 mi upstream from mouth.

DRAINAGE AREA.--1,061 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--November and December 1910 (gage heights and discharge measurements only), October 1937 to current year. Monthly discharges only for some periods, published in WSP 1313. Published as "near Gunnison" 1910.

REVISED RECORDS.--WSP 2124: Drainage area. WDR CO-86-2: 1985.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 7,628.58 ft above sea level. Nov. 25 to Dec. 24, 1910, nonrecording gage 300 ft upstream at different datum. Apr. 20, 1938 to Oct. 2, 1940, water-stage recorder at present site at datum 1.00 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 24,000 acres upstream from station. Water diverted upstream from station by Larkspur ditch to Arkansas River basin since 1935 and by Tarbell ditch to Rio Grande basin since 1914.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	155	120	e84	e84	e82	e92	e200	366	283	139	111	e37
2	145	128	e82	e80	e89	e87	e230	360	246	119	110	e38
3	135	107	e81	e83	e82	e88	e210	371	251	113	109	e40
4	130	99	e80	e88	e86	e93	e190	387	274	108	107	43
5	136	104	e82	e90	e93	e100	e175	411	279	102	104	44
6	136	115	e84	e87	e89	e98	e230	443	300	96	97	53
7	135	135	e86	e86	e88	e94	e300	479	311	88	90	59
8	131	129	e82	e90	e87	e96	e350	500	314	82	83	57
9	136	125	e80	e93	e88	e105	e400	540	322	83	83	52
10	134	136	e79	e96	e90	e115	436	578	334	101	84	50
11	128	103	e80	e91	e86	e123	415	589	323	84	82	49
12	122	e105	e79	e87	e86	e118	354	626	303	78	82	51
13	123	e110	e80	e86	e87	e115	326	688	335	76	75	61
14	127	e93	e82	e84	e88	e118	275	743	338	62	65	62
15	122	e88	e76	e85	e88	e125	263	758	370	104	62	70
16	119	e86	e83	e86	e88	e120	267	758	396	133	63	72
17	119	e90	e81	e86	e89	e115	292	762	337	133	55	62
18	117	e88	e76	e91	e94	e113	287	838	273	134	54	61
19	112	e85	e71	e84	e100	e116	283	845	213	140	52	64
20	109	e83	e67	e86	e113	e128	260	862	197	136	49	68
21	108	e82	e73	e82	e130	e136	246	852	206	124	50	67
22	111	e83	e70	e92	e120	e160	233	775	253	123	e44	69
23	110	e84	e66	e87	e115	e148	225	690	285	116	e42	71
24	105	e81	e62	e86	e105	e135	258	621	242	107	e40	71
25	108	e78	e67	e85	e96	e126	334	554	191	101	e37	73
26	112	e79	e70	e82	e96	e122	427	515	175	92	e37	76
27	118	e80	e71	e78	e97	e124	485	485	182	94	e37	77
28	120	e78	e71	e89	e98	e130	497	452	201	110	e38	75
29	116	e84	e77	e94	e96	e141	441	396	200	135	e38	77
30	117	e86	e78	e93	---	e158	388	316	175	131	e38	77
31	115	---	e84	e86	---	e175	---	294	---	123	e37	---
TOTAL	3811	2944	2384	2697	2746	3714	9277	17854	8109	3367	2055	1826
MEAN	123	98.1	76.9	87.0	94.7	120	309	576	270	109	66.3	60.9
MAX	155	136	86	96	130	175	497	862	396	140	111	77
MIN	105	78	62	78	82	87	175	294	175	62	37	37
AC-FT	7560	5840	4730	5350	5450	7370	18400	35410	16080	6680	4080	3620

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1996, BY WATER YEAR (WY)

MEAN	93.8	102	76.8	66.4	69.2	111	246	404	481	198	159	91.6
MAX	209	158	117	116	98.0	279	564	2073	1481	859	440	318
(WY)	1970	1971	1987	1971	1986	1939	1942	1984	1984	1957	1957	1970
MIN	33.5	62.4	45.8	37.1	36.2	59.8	56.5	22.4	51.8	42.5	51.5	19.2
(WY)	1964	1951	1964	1979	1981	1967	1977	1977	1955	1977	1977	1956

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1938 - 1996
ANNUAL TOTAL	106658	60784	
ANNUAL MEAN	292	166	
HIGHEST ANNUAL MEAN			175
LOWEST ANNUAL MEAN			478
HIGHEST DAILY MEAN	2340	Jun 19	60.4
LOWEST DAILY MEAN	e35	Jan 2	1977
ANNUAL SEVEN-DAY MINIMUM	51	Jan 1	May 20
INSTANTANEOUS PEAK FLOW		862	4040
INSTANTANEOUS PEAK STAGE		37	May 26 1984
ANNUAL RUNOFF (AC-FT)	211600	906	4620
10 PERCENT EXCEEDS	844	May 20	May 23 1984
50 PERCENT EXCEEDS	138	3.61	5.49
90 PERCENT EXCEEDS	60	65	May 23 1984
			126800
			392
			98
			54

e-Estimated.

a-Also occurred Aug 26-27, 31, and Sep 1.

**09119000 TOMICHI CREEK AT GUNNISON, CO--Continued**  
**WATER-QUALITY RECORDS**

PERIOD OF RECORD--October 1990 to September 1993, April 1995 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-	SPE-					OXYGEN	COLI-	HARD-	CALCIUM	MAGNE-
		CHARGE, INST. CUBIC FEET PER SECOND	CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	BIO- CHEM- ICAL, 5 DAY (MG/L)	DEMAND, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NESS TOTAL (MG/L AS CACO3)	DIS- SOLVED (MG/L AS CA)	SUM AS SIUM, DIS- SOLVED (MG/L AS MG)
OCT 27...	1000	129	259	8.2	4.5	0.70	9.7	2.4	K22	130	35	9.2
DEC 07...	1450	87	250	8.4	0.0	2.2	11.3	<0.1	K2	120	32	8.6
JAN 10...	1245	102	240	7.4	0.0	--	10.6	1.4	K1	110	31	8.3
FEB 28...	1230	105	240	7.4	0.5	--	10.6	--	<1	110	30	7.9
APR 01...	1545	e200	270	8.1	6.5	--	9.8	--	K5	110	30	8.3
MAY 23...	1530	760	182	8.2	14.0	2.4	9.3	0.8	41	80	22	6.1
JUL 19...	0850	139	352	8.3	15.0	2.3	8.5	1.6	130	170	48	12
SEP 11...	1500	47	340	8.7	16.5	--	8.7	1.2	73	170	47	12
<hr/>												
DATE		SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB SOLVED (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS CACO3)	CHLO- RIDE, DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS F) SIO2)	SUM OF CONSTITUENTS, (MG/L AS SIO2)	SOLID(S, DIS- SOLVED (TONS PER AC-FT))	SOLID(S, DIS- SOLVED (TONS PER DAY))
		7.4	0.3	2.0	123	8.3	4.1	0.3	20	160	0.22	55.8
OCT 27...		6.9	0.3	1.8	112	16	1.4	0.3	19	153	0.21	36.1
DEC 07...		7.5	0.3	2.0	115	13	1.5	0.5	20	153	0.21	42.2
JAN 10...		8.2	0.3	2.3	113	13	1.9	0.5	21	153	0.21	43.2
FEB 28...		10	0.4	5.6	105	27	3.7	0.4	18	166	0.23	89.6
APR 01...		4.6	0.2	1.9	78	13	1.0	0.3	16	112	0.15	229
MAY 23...		7.9	0.3	2.0	175	12	1.7	0.4	19	208	0.28	78.2
JUL 19...		8.4	0.3	2.6	170	15	2.5	0.4	17	207	0.28	26.3
<hr/>												
DATE		NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	
		<0.01	<0.05	<0.02	<0.2	<0.2	0.02	<0.01	0.02	<0.01	0.02	
OCT 27...		<0.01	<0.05	<0.02	<0.2	<0.2	0.05	0.05	0.01	0.01		
DEC 07...		<0.01	<0.05	<0.02	<0.2	<0.2	0.04	0.04	0.02	0.02		
JAN 10...		<0.01	0.08	<0.02	<0.2	<0.2	0.07	0.07	0.01	<0.01		
FEB 28...		<0.01	<0.05	<0.02	0.2	<0.2	0.07	0.07	0.01	<0.01		
APR 01...		0.02	0.06	0.05	0.6	0.5	0.07	0.07	0.05	0.04		
MAY 23...		<0.01	<0.05	<0.02	0.4	0.4	0.03	0.03	0.03	0.02		
JUL 19...		0.01	0.07	0.03	0.4	0.3	0.05	0.05	0.04	0.03		
SEP 11...		<0.01	0.06	<0.02	0.3	0.2	0.02	0.01	0.02			

e-Estimated.

K-Based on non-ideal colony count.

## GUNNISON RIVER BASIN

**09119000 TOMICHI CREEK AT GUNNISON, CO--Continued**

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	CADMIUM DIS- SOLVED (UG/L AS CD)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, RECOV- ERABLE (UG/L AS FE)	TOTAL LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, RECOV- ERABLE (UG/L AS MN)	ZINC, DIS- SOLVED (UG/L AS ZN)	
OCT 27...		10	<1	<1	260	<1	50	<10
APR 01...		<10	<1	<1	1500	<1	220	10
MAY 23...		10	<1	2	720	<1	60	<3
SEP 11...		<5	<1	<1	170	<1	50	<3

## MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
OCT 04...	1510	131	256	9.5	JUL 17...	1620	129	356	21.5
APR 09...	1310	400	247	9.0	AUG 19...	1610	51	316	21.0
MAY 21...	1650	919	179	16.0					

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)		
OCT 27...	1000	129	4	1.4	JUL 19...	0850	139	17	6.5
MAY 23...	1530	760	27	55	SEP 11...	1500	47	2.9	0.37

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	
SEP 21...	1315	133	5	1.8

**383103106594200 GUNNISON RIVER AT COUNTY ROAD 32 BELOW GUNNISON, CO**  
**(National Water-Quality Assessment Program station)**

**WATER-QUALITY RECORDS**

LOCATION.--Lat 38°31'03", long 106°59'42", in SW<sup>1/4</sup>SE<sup>1/4</sup> sec. 8, T.49 N., R.1 W., Gunnison County, Hydrologic Unit 14020002, at County Road 32 bridge, 0.25 mi south of US HWY 50, and 3.3 mi west of Gunnison.

DRAINAGE AREA.--2,128 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1994 to current year.

REMARKS.--Upper Colorado River Basin National Water Quality Assessment Program station (NAWQA).

**WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996**

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC COND- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L CACO <sub>3</sub> )	MAGNE- SIUM, CALCIUM DIS- SOLVED (MG/L AS CA)	SODIUM, DIS- SOLVED (MG/L AS MG)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)		
OCT 17...	1120	795		208	8.2	6.0	9.8	94	28	5.9	3.3	0.1	1.0
DEC 14...	1300	472		223	8.5	2.5	11.4	97	28	6.5	4.5	0.2	1.3
FEB 28...	1310	362		228	7.9	0.0	11.2	98	28	6.9	5.2	0.2	1.4
APR 11...	1230	1420		193	7.9	3.5	9.8	83	24	5.6	4.8	0.2	1.9
MAY 17...	1000	5780		144	8.0	6.5	9.1	67	20	4.2	2.4	0.1	1.0
JUN 13...	1240	3420		190	8.3	10.5	9.0	90	27	5.5	2.8	0.1	1.1
AUG 22...	1340	647		199	8.5	14.5	8.5	91	27	5.7	3.1	0.1	1.0
		BICAR- <sup>a</sup>	CAR- <sup>b</sup>	ALKA- <sup>c</sup>									
		BONATE WATER DIS IT FIELD (MG/L AS HCO <sub>3</sub> )	BONATE WATER DIS IT FIELD (MG/L AS CO <sub>3</sub> )	LINITY WAT DIS TOT IT LAB (MG/L AS CACO <sub>3</sub> )	ALKA- <sup>d</sup> LINITY DIS- SOLVED (MG/L AS CACO <sub>3</sub> )	SULFATE CHLO- RIDE, DIS- SOLVED (MG/L AS SO <sub>4</sub> )	FLUO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, RESIDUE AT 180 DEG. C SIO <sub>2</sub> )	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)		
OCT 17...	104	--	86	--	12	1.0	0.1	9.9	112	113	0.15	240	
DEC 14...	122	--	100	--	16	1.3	0.3	11	131	129	0.18	167	
FEB 28...	98	--	--	100	14	1.5	0.2	12	146	117	0.20	143	
APR 11...	90	--	74	--	16	1.6	0.2	12	100	111	0.14	383	
MAY 17...	73	--	60	--	9.6	0.6	0.1	9.1	86	83	0.12	1340	
JUN 13...	87	--	--	85	10	1.0	0.1	9.6	110	100	0.15	1010	
AUG 22...	97	3	84	--	12	0.8	0.2	8.7	114	110	0.16	199	
		NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO <sub>2</sub> +NO <sub>3</sub> DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL DIS. (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	CARBON, CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)		
OCT 17...	<0.01	0.07	<0.015	<0.2	<0.2	<0.01	<0.01	0.02	1.8	0.2	42	18	
DEC 14...	<0.01	<0.05	<0.015	<0.2	<0.2	0.01	<0.01	<0.01	1.3	0.5	22	12	
FEB 28...	<0.01	<0.05	<0.015	0.4	<0.2	0.10	0.02	0.02	1.4	0.5	21	18	
APR 11...	<0.01	0.11	0.02	0.5	0.2	0.15	0.03	0.02	3.5	1.1	81	26	
MAY 17...	<0.01	0.08	<0.015	0.4	<0.2	0.10	<0.01	<0.01	3.7	3.0	50	10	
JUN 13...	0.02	0.08	0.04	0.3	<0.2	0.06	<0.01	0.01	3.0	0.4	38	15	
AUG 22...	<0.01	0.09	<0.015	<0.2	<0.2	0.08	<0.01	0.02	1.8	0.2	25	11	

a-Field dissolved bicarbonate, determined by incremental titration method.

b-Field dissolved carbonate, determined by incremental titration method.

c-Field total dissolved alkalinity, determined by incremental titration method.

d-Lab total dissolved alkalinity, determined by fixed end-point titration method.

## GUNNISON RIVER BASIN

**383103106594200 GUNNISON RIVER AT COUNTY ROAD 32 BELOW GUNNISON, CO--Continued**  
**(National Water-Quality Assessment Program station)**

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SEDI- f MENT, DIS- MENT, SUS- SUS-	PENDEd PER SECOND	SEDI- CHARGE, INST. CUBIC FEET	DIS- f MENT, DIS- MENT, SUS- SUS-	PENDEd PER SECOND	
		(MG/L)	(T/DAY)				(MG/L)	(T/DAY)
OCT 17...	1120	795	6	13	MAY 17...	1000	5780	297 4630
DEC 14...	1300	472	6	7.6	JUN 13...	1240	3420	19 175
FEB 28...	1310	362	6	5.9	AUG 22...	1340	647	2 3.5
APR 11...	1230	1420	67	257				

f-Suspended-sediment concentration determined from a subsample split of a composite sample.

**09124500 LAKE FORK AT GATEVIEW, CO**

**LOCATION.**--Lat 38°17'56", long 107°13'46", in SE<sup>1/4</sup>NE<sup>1/4</sup> sec.29, T.47 N., R.3 W., Gunnison County, Hydrologic Unit 14020002, on left bank at old village of Gateview, 25 ft downstream from private bridge, 0.2 mi upstream from Indian Creek, and 6.3 mi upstream from waterline of Blue Mesa Reservoir, at elevation 7,519 ft.

**DRAINAGE AREA.**--334 mi<sup>2</sup>.

**PERIOD OF RECORD.**--October 1937 to current year. Monthly discharge only for some periods, published in WSP 1313.

**REVISED RECORDS.**--WSP 2124: Drainage area.

**GAGE.**--Water-stage recorder with satellite telemetry. Datum of gage is 7,827.66 ft above sea level. Prior to Oct. 1, 1938, at datum 2.00 ft, higher, Oct. 1, 1938 to Sept. 30, 1945, at datum 1.00 ft, higher, and Oct. 1, 1945 to Sept. 3, 1991, at datum 1.00 ft, higher.

**REMARKS.**--Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 1,600 acres upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	136	85	78	e50	e45	e43	e88	176	458	495	134	76
2	132	83	77	e50	e40	e42	e100	189	584	460	135	75
3	129	69	75	e50	e35	e46	e130	215	729	433	140	74
4	129	72	71	e52	e40	e48	e115	220	885	418	138	73
5	126	75	69	e52	e50	e110	283	997	406	127	72	
6	122	75	65	e54	e56	e45	e140	358	1090	402	120	77
7	126	76	62	e54	e56	e43	e145	446	1140	384	113	78
8	122	73	64	e52	e54	e45	e150	473	1120	366	112	73
9	115	72	55	e52	e47	159	622	1060	360	112	69	
10	116	78	58	e50	e53	e48	160	588	1010	348	109	67
11	114	61	55	e50	e52	e52	152	578	942	334	103	66
12	111	85	e50	e50	e51	e56	128	715	830	308	100	76
13	113	80	e46	e52	e46	e54	119	870	772	291	96	98
14	107	78	e43	e54	e48	e50	104	913	839	275	92	105
15	105	76	e40	e54	e50	e50	94	936	850	255	87	116
16	104	75	e36	e52	e52	e52	94	1080	768	249	86	115
17	102	75	e36	e52	e55	e54	93	1260	788	250	83	105
18	100	70	e34	e50	e60	e53	96	1250	782	278	84	101
19	99	71	e33	e50	e62	e50	91	e1320	747	208	84	104
20	93	70	e32	e52	e64	e48	83	e1400	727	199	84	107
21	92	69	e30	e54	e66	e50	78	1310	823	193	82	104
22	96	69	e33	e52	e58	e53	72	1270	974	187	81	103
23	86	68	e35	e50	e56	e56	70	1180	881	181	82	104
24	91	62	e34	e50	e52	e53	75	924	727	177	86	101
25	91	65	e38	e48	e50	e53	119	725	640	170	84	99
26	92	71	e42	e40	e52	e55	145	589	587	162	87	100
27	90	70	e44	e29	e48	e57	185	481	587	141	90	97
28	86	55	e48	e38	e46	e60	213	422	609	135	91	98
29	85	66	e52	e48	e43	e65	189	390	566	158	87	99
30	85	78	e54	e52	---	e70	173	404	532	150	83	97
31	84	---	e52	e50	---	e78	---	421	---	141	80	---
TOTAL	3279	2172	1541	1543	1493	1626	3670	22008	24044	8514	3072	2729
MEAN	106	72.4	49.7	49.8	51.5	52.5	122	710	801	275	99.1	91.0
MAX	136	85	78	54	66	78	213	1400	1140	495	140	116
MIN	84	55	30	29	35	42	70	176	458	135	80	66
AC-FT	6500	4310	3060	3060	2960	3230	7280	43650	47690	16890	6090	5410

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1996, BY WATER YEAR (WY)

MEAN	93.3	68.0	52.0	46.0	43.6	55.7	132	535	987	487	204	128
MAX	242	143	75.7	66.5	71.0	102	339	1153	1586	1266	479	430
(WY)	1942	1942	1984	1984	1986	1939	1952	1984	1944	1957	1982	1970
MIN	40.3	42.7	34.6	32.5	30.4	30.5	53.3	205	263	107	82.5	45.5
(WY)	1957	1940	1940	1977	1990	1977	1990	1977	1977	1977	1956	1956

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1938 - 1996
ANNUAL TOTAL	117378	75691	
ANNUAL MEAN	322	207	
HIGHEST ANNUAL MEAN			236
LOWEST ANNUAL MEAN			413
HIGHEST DAILY MEAN	2130	Jun 17	1984
LOWEST DAILY MEAN	b27	Jan 2	88.7
ANNUAL SEVEN-DAY MINIMUM	32	Feb 15	1977
INSTANTANEOUS PEAK FLOW		a1400	1957
INSTANTANEOUS PEAK STAGE		e29	Jun 29 1957
ANNUAL RUNOFF (AC-FT)	232800	May 20	1970
10 PERCENT EXCEEDS	1100	2410	
50 PERCENT EXCEEDS	90	22	Jan 21 1976
90 PERCENT EXCEEDS	38	d23	Jan 19 1976
		2720	Jul 10 1983
		c4.05	Jun 16 1995
		4.77	
		171300	
		688	
		85	
		40	

e-Estimated.

a-Estimated during period of indefinite stage-discharge relationship, May 19-20.

b-Also occurred Jan 3.

c-May have been higher during period of indefinite stage-discharge relationship, May 19-20.

d-Datum then in use, gage height, 4.18 ft.

## GUNNISON RIVER BASIN

**09125800 SILVER JACK RESERVOIR NEAR CIMARRON, CO**

LOCATION.--Lat 38°13'58", long 107°32'28", in T.46 N., R. 6 W., Gunnison County, Hydrologic Unit 14020002, in gate house of Silver Jack Dam on Cimarron River, 14.5 mi south of Cimarron.

DRAINAGE AREA.--59 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1987 to current year.

REVISED RECORDS.--WDR CO-92-2: 1991 minimum contents.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 8925.60 ft. above sea level, (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above sea level.

REMARKS.--Reservoir is formed by an earthfill dam. Storage began in December 1970; dam completed December 1971. Capacity, 13,520 acre-ft, 1971 survey, between elevation 8,800.0 ft, streambed at dam, and 8,925.6 ft, crest of spillway. Dead storage below elevation 8,836.0 ft, 520 acre-ft. Figures given are live contents.

COOPERATION.--Capacity tables provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 13,550 acre-ft, June 15-16, 1995, elevation, 8,927.45 ft; minimum contents, 1,840 acre-ft, Sept. 30, 1994, elevation, 8,864.91 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 13,460 acre-ft, May 20, elevation, 8,927.14 ft; minimum contents, 2,100 acre-ft, Sept. 17, elevation, 8,867.62 ft.

## MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30 . . . . .	8,905.87	8,030	
Oct. 31 . . . . .	8,906.38	8,140	+110
Nov. 30 . . . . .	8,908.80	8,680	+540
Dec. 31 . . . . .	8,910.54	9,070	+390
CAL YR 1995. . . . .	-	-	+6,400
Jan. 31 . . . . .	8,911.85	9,380	+310
Feb. 29 . . . . .	8,912.65	9,560	+180
Mar. 31 . . . . .	8,913.53	9,780	+220
Apr. 30 . . . . .	8,923.33	12,360	+2,580
May 31 . . . . .	8,926.11	13,150	+790
June 30 . . . . .	8,926.27	13,200	+50
July 31 . . . . .	8,917.27	10,720	-2,480
Aug. 31 . . . . .	8,887.38	4,620	-6,100
Sept. 30 . . . . .	8,872.81	2,670	-1,950
WTR YR 1996. . . . .	-	-	-5,360

## 09126000 CIMARRON RIVER NEAR CIMARRON, CO

LOCATION.--Lat 38°15'36", long 107°32'43", in NW<sup>1/4</sup>NE<sup>1/4</sup> sec.8, T.46 N., R.6 W., Gunnison County, Hydrologic Unit 14020002, on right bank 100 ft upstream from Forest Service bridge, 0.6 mi upstream from headgate on Cimarron ditch, 2.1 mi downstream from Silver Jack Dam, and 13 mi south of Cimarron.

DRAINAGE AREA.--66.6 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1954 to current year. Prior to October 1965, published as Cimarron Creek near Cimarron. Statistical summary computed for 1971 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 8,631.48 ft above sea level. Prior to Oct. 12, 1972, at site 0.2 mi downstream, at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversion upstream from station through Owl Creek ditch into Uncompahgre River basin. Flow regulated by Silver Jack Dam, 2.1 mi upstream since Dec. 23, 1970, total capacity, 13,520 acre-ft. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	35	e15	e14	e12	e11	e20	43	271	207	136	108
2	40	34	e15	e13	e10	e25	45	358	199	135	109	
3	40	33	e15	e14	e12	e10	e28	41	462	183	135	111
4	39	33	e14	e14	e12	e11	e30	58	565	176	134	109
5	40	33	e14	e13	e14	e11	e26	190	640	172	133	111
6	40	33	e14	e13	e16	e11	e23	283	688	167	133	110
7	40	33	e14	e14	e15	e10	e24	310	703	160	133	109
8	40	33	e14	e13	e14	e10	e27	343	671	157	133	108
9	42	25	e13	e13	e14	e11	e30	396	603	157	132	107
10	57	18	e13	e13	e14	e11	32	344	605	157	131	106
11	57	18	e13	e13	e14	e12	32	417	551	143	131	104
12	57	18	e13	e13	e13	e14	28	550	450	125	126	105
13	56	18	e13	e13	e13	e13	27	695	425	125	119	104
14	55	18	e13	e13	e14	e12	25	630	516	125	119	104
15	55	18	e12	e13	e14	e12	26	626	685	127	119	103
16	51	18	e14	e14	e14	e12	25	742	560	133	119	65
17	45	19	e13	e13	e14	e12	25	770	509	133	118	31
18	44	19	e12	e12	e15	e12	25	769	422	134	117	31
19	44	19	e12	e13	e15	e11	24	770	396	132	116	31
20	44	18	e12	e12	e17	e11	24	768	376	132	114	28
21	44	18	e12	e12	e23	e12	24	778	464	131	113	22
22	45	18	e11	e13	e19	e14	24	809	510	125	113	22
23	45	18	e10	e13	e14	e15	28	746	398	104	113	22
24	45	18	e10	e13	e14	e16	35	572	306	103	113	21
25	45	e17	e11	e12	e13	e15	45	453	275	102	113	21
26	45	e17	e12	e12	e13	e14	48	343	260	102	113	21
27	44	e15	e12	e11	e12	e13	51	274	266	102	112	21
28	e40	e15	e13	e14	e11	e13	43	236	263	102	111	21
29	e35	e15	e14	e14	e11	e15	37	204	233	121	111	21
30	e30	e15	e14	e14	---	e16	41	217	218	137	110	21
31	e34	---	e14	e12	---	e18	---	230	---	136	109	---
TOTAL	1379	659	401	403	409	388	902	13652	13649	4309	3764	2007
MEAN	44.5	22.0	12.9	13.0	14.1	12.5	30.1	440	455	139	121	66.9
MAX	57	35	15	14	23	18	51	809	703	207	136	111
MIN	30	15	10	11	11	10	20	41	218	102	109	21
AC-FT	2740	1310	795	799	811	770	1790	27080	27070	8550	7470	3980

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1996, BY WATER YEAR (WY)

MEAN	49.8	23.1	16.5	14.8	14.9	16.2	23.8	167	437	227	117	72.8
MAX	135	46.9	31.7	30.0	29.4	35.3	46.5	440	799	640	239	126
(WY)	1983	1986	1974	1974	1986	1986	1987	1996	1984	1995	1983	1995
MIN	20.2	8.18	6.79	2.36	3.03	4.45	8.46	46.5	114	89.0	73.9	32.2
(WY)	1991	1990	1978	1971	1971	1971	1977	1995	1977	1977	1981	1977

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1971 - 1996

ANNUAL TOTAL	58557		41922									
ANNUAL MEAN	160		115									
HIGHEST ANNUAL MEAN												
LOWEST ANNUAL MEAN												
HIGHEST DAILY MEAN	1330	Jun 16	809	May 22								
LOWEST DAILY MEAN	e,b 10	Dec 23	e,c 10	Dec 23								
ANNUAL SEVEN-DAY MINIMUM	11	Dec 19	10	Mar 2								
INSTANTANEOUS PEAK FLOW			893	May 21								
			4.79	May 21								
ANNUAL RUNOFF (AC-FT)	116100		83150									
10 PERCENT EXCEEDS	615		382									
50 PERCENT EXCEEDS	30		33									
90 PERCENT EXCEEDS	14		12									

e-Estimated.

a-Average discharge for 16 years (water years 1955-70), 88.6 ft<sup>3</sup>/s; 64190 acre-ft/yr, prior to completion of Silver Jack Dam.

b-Also occurred on Dec 24.

c-Also occurred on Dec 24, and Mar 2-3, and 7-8.

d-Also occurred Dec 25-31, 1970, and Jan 1-9, 1971. Result of storage in Silver Jack Dam.

f-Minimum daily discharge prior to construction of Silver Jack Dam, 8.0 ft<sup>3</sup>/s, Dec 27-28, 1962, and Jan 13, 1963.

g-Maximum discharge and stage for period of record, 1790 ft<sup>3</sup>/s, Jun 28, 1957, gage height, 8.32 ft, site and datum then in use.

h-Maximum gage height for statistical period, 6.16 ft, Jun 25, 1971.

## GUNNISON RIVER BASIN

## 09128000 GUNNISON RIVER BELOW GUNNISON TUNNEL, CO

LOCATION.--Lat  $38^{\circ}31'45''$ , long  $107^{\circ}38'54''$ , in NE $1/4$ NW $1/4$  sec.10, T.49 N., R.7 W., Montrose County, Hydrologic Unit 14020002, on left bank 0.4 mi downstream from east portal of Gunnison tunnel, 4.7 mi downstream from Crystal Creek, and 12 mi northeast of Montrose.

DRAINAGE AREA.--3,965 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1903 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "at east portal of Gunnison tunnel" 1905-6 and as "at River portal" 1907-11. Statistical summary computed for 1911 to current year.

REVISED RECORDS.--WSP 1313: 1906(M). WSP 1733: 1918-19, 1948. WSP 2124: Drainage area. WDR CO-77-2: 1926, 1941.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 6,526.06 ft above sea level. Apr. 9, 1905 to Aug. 20, 1915, nonrecording gage at site 300 ft upstream from diversion dam at east portal of Gunnison Tunnel, at different datum. Aug. 21, 1915 to Jan. 19, 1943, nonrecording gage at site 500 ft downstream from diversion dam at east portal of Gunnison Tunnel, at different datum. Jan. 20, 1943 to Sept. 30, 1956, water-stage recorder at present site at datum 1.0 ft, higher.

REMARKS.--No estimated daily discharges. Records good. Natural flow of stream affected by transmountain diversions, transbasin diversion through Gunnison Tunnel for irrigation of about 75,000 acres in Uncompahgre Valley (see table below for figures of diversion), Taylor Park Reservoir (station 09108500), Blue Mesa Reservoir (station 09124600), Morrow Point Reservoir (station 09125400), Crystal Reservoir (station 09127600), diversions for irrigation of about 63,000 acres, and return flow from irrigated areas.

COOPERATION.--Diversions, in acre-feet, through Gunnison tunnel; provided by Uncompahgre Valley Water Users Association.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1560	1450	1900	2030	995	999	1340	2240	698	3130	790	757
2	1520	1450	1900	2090	998	994	1190	2240	724	2760	766	759
3	1470	1450	1910	2090	998	991	1140	2240	762	2730	758	767
4	1470	1450	1920	2090	993	991	1170	2240	740	2530	761	747
5	1470	1460	1910	2100	1020	990	1140	2240	671	2400	762	732
6	1470	1860	1900	2090	944	870	1150	2420	678	2240	760	733
7	1480	1880	1900	2090	949	626	1170	2790	675	2240	762	732
8	1470	1900	1910	2040	1010	626	1160	2970	688	2150	761	732
9	1470	1890	1910	1850	1010	925	1100	3010	678	2000	761	744
10	1480	1890	1910	1650	1010	1070	3020	680	1820	763	737	
11	1480	1890	1910	1420	1000	1010	1070	3020	915	1770	758	739
12	1480	1900	1920	1160	997	1020	1050	3020	1210	1750	758	740
13	1480	1900	1920	963	993	1040	1040	3020	1340	1760	740	723
14	1480	1900	1920	975	993	1280	1040	3010	1550	1770	709	706
15	1490	1920	1920	933	997	1550	1030	3020	1820	1680	719	701
16	1480	1940	1920	926	1010	1580	1030	3010	1940	1450	723	701
17	1480	1930	1920	989	1010	1580	1030	3010	2510	1190	729	708
18	1480	1940	1880	986	1010	1590	1030	3010	4000	970	731	709
19	1480	1940	1880	982	1010	1420	1030	3000	4480	768	713	677
20	1480	1940	1920	978	1010	1400	1030	3000	4330	741	714	634
21	1460	1940	1920	977	1010	1400	1030	3000	4110	738	714	631
22	1460	1940	1930	981	1010	1390	1020	2900	4180	745	718	658
23	1450	1940	1930	981	1020	1390	1320	2570	4100	730	718	603
24	1460	1940	1920	982	1020	1400	1580	2140	4000	721	718	572
25	1460	1940	1920	984	1010	1370	1600	1740	3950	739	727	590
26	1460	1930	1920	987	962	1390	1620	1360	3870	746	746	626
27	1450	1890	1920	987	943	1340	1610	1110	3600	746	723	735
28	1450	1890	1920	984	1000	1340	1620	823	3420	747	725	758
29	1450	1850	1920	991	997	1330	1830	736	3340	751	725	757
30	1450	1850	1920	989	---	1330	2160	711	3320	758	755	766
31	1450	---	1900	992	---	1340	---	702	---	757	757	---
TOTAL	45670	54990	59300	41267	28929	37512	37400	73322	68979	46027	22964	21174
MEAN	1473	1833	1913	1331	998	1210	1247	2365	2299	1485	741	706
MAX	1560	1940	1930	2100	1020	1590	2160	3020	4480	3130	790	767
MIN	1450	1450	1880	926	943	626	1020	702	671	721	709	572
AC-FT	90590	109100	117600	81850	57380	74410	74180	145400	136800	91290	45550	42000
a	10080	0	0	0	0	9930	52770	59220	59940	61380	60930	50900
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1996, BY WATER YEAR (WY)												
MEAN	539	742	784	770	760	853	1304	3231	4116	1553	667	478
MAX	2114	1888	2165	2732	3153	3278	3282	8611	11670	8468	2237	2447
(WY)	1912	1971	1987	1974	1971	1971	1930	1928	1957	1957	1957	1929
MIN	17.0	116	141	143	155	248	177	216	123	61.1	34.4	8.37
(WY)	1935	1935	1966	1966	1966	1966	1954	1967	1954	1940	1924	1937
SUMMARY STATISTICS												
ANNUAL TOTAL		873898				537534						
ANNUAL MEAN		2394				1469				1317		
HIGHEST ANNUAL MEAN										2936		1984
LOWEST ANNUAL MEAN										261		1967
HIGHEST DAILY MEAN		9210	Jul 6		4480	Jun 19				18600	Jun 15	1921
LOWEST DAILY MEAN		306	Sep 21		572	Sep 24			b .00	Sep 11	1915	
ANNUAL SEVEN-DAY MINIMUM		524	Sep 21		616	Sep 20			.30	Oct 26	1950	
INSTANTANEOUS PEAK FLOW					4550	Jun 20			c 19000	Jun 15	1921	
INSTANTANEOUS PEAK STAGE					7.25	Jun 20			15.80	Jun 15	1921	
ANNUAL RUNOFF (AC-FT)		1733000			1066000				954000			
10 PERCENT EXCEEDS		5000			2410				3180			
50 PERCENT EXCEEDS		1640			1340				586			
90 PERCENT EXCEEDS		660			724				184			

a--Diversions, in acre-feet, through Gunnison tunnel, provided by Uncompahgre Valley Water Users Association.

b--Also occurred Sep 26, 1936, Oct 8, 1949, Sep 5-6, and 15-16, 1950.

c--Present datum, from rating curve extended above 14000 ft<sup>3</sup>/s.

**09128000 GUNNISON RIVER BELOW GUNNISON TUNNEL, CO--Continued**  
**(National Water-Quality Assessment Program station)**

**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--December 1994 to current year.

REMARKS.--Upper Colorado River Basin National Water Quality Assessment Program station (NAWQA).

**WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996**

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC DUCT- ANCE (US/CM)	PH ARD UNITS	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L) CACO3	MAGNE- SIUM, CALCIUM DIS- SOLVED (MG/L) AS CA)	SODIUM, DIS- SOLVED (MG/L) AS MG)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L) AS K)	
OCT 16...	1420	1470	168	8.0	11.0	8.6	71	21	4.6	3.6	0.2	1.2
DEC 01...	1110	1940	173	7.9	7.5	8.6	78	23	5.0	3.7	0.2	1.2
11...	1305	1910	177	7.7	7.0	9.6	81	24	5.0	3.9	0.2	1.2
JAN 22...	1315	975	181	7.7	3.0	11.0	83	25	5.0	3.6	0.2	1.3
FEB 29...	1100	1010	195	7.9	1.0	11.4	83	24	5.7	5.0	0.2	1.4
MAR 20...	1215	1410	206	8.0	2.5	11.0	85	24	6.1	5.8	0.3	1.4
28...	1045	1320	198	7.9	2.5	10.9	82	24	5.4	4.8	0.2	1.1
APR 17...	1345	1020	201	8.1	3.5	10.3	86	25	5.6	5.3	0.2	1.6
MAY 22...	1345	2890	147	8.0	8.0	9.5	64	19	3.9	3.5	0.2	1.4
31...	1245	705	156	8.1	8.5	9.5	68	20	4.3	4.2	0.2	1.5
JUN 14...	1150	1510	156	8.1	10.0	9.2	65	19	4.3	4.2	0.2	1.5
JUL 02...	1010	2750	167	8.2	9.5	12.0	68	20	4.3	4.0	0.2	1.3
19...	1300	741	173	8.2	11.0	11.0	71	21	4.5	3.9	0.2	1.4
AUG 19...	1310	716	172	8.0	12.0	10.8	71	21	4.5	4.0	0.2	1.3
SEP 04...	1250	741	171	8.1	12.0	8.8	74	22	4.7	3.6	0.2	1.3
<hr/>												
BICAR <sup>a</sup> BONATE WATER DIS IT FIELD DATE	MG/L AS HCO3	ALKA <sup>b</sup> LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	ALKA <sup>c</sup> LINITY LAB DIS- SOLVED (MG/L AS CACO3)	SULFATE CHLO- RIDE, DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, RESIDUE AT 180 DEG. C (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	
OCT 16...	82	67	--	12	0.7	0.1	11	97	95	0.13	385	<0.01
DEC 01...	74	--	71	13	0.8	0.2	11	100	95	0.14	524	<0.01
11...	85	70	--	14	0.7	0.2	12	105	103	0.14	541	<0.01
JAN 22...	85	70	--	12	1.4	0.1	12	107	102	0.15	282	<0.01
FEB 29...	91	75	--	18	1.3	0.2	11	134	111	0.18	365	<0.01
MAR 20...	90	74	--	23	1.3	0.2	12	127	118	0.17	483	<0.01
28...	90	74	--	19	1.3	0.2	11	125	111	0.17	446	0.02
APR 17...	93	77	--	21	1.0	0.2	12	121	117	0.16	333	<0.01
MAY 22...	71	58	--	11	0.8	0.2	15	96	90	0.13	749	<0.01
31...	71	58	--	14	0.9	0.1	16	126	96	0.17	240	<0.01
JUN 14...	71	58	--	14	0.9	0.2	16	97	95	0.13	395	0.02
JUL 02...	77	63	--	15	0.8	0.2	12	105	96	0.14	780	<0.01
19...	82	68	--	16	0.8	0.2	12	108	101	0.15	216	<0.01
AUG 19...	68	--	70	15	0.8	0.2	11	104	92	0.14	201	<0.01
SEP 04...	82	67	--	14	0.8	0.1	11	105	98	0.14	210	<0.01

a-Field dissolved bicarbonate, determined by incremental titration method.

b-Field total dissolved alkalinity, determined by incremental titration method.

c-Lab total dissolved alkalinity, determined by fixed end-point method.

## GUNNISON RIVER BASIN

**09128000 GUNNISON RIVER BELOW GUNNISON TUNNEL, CO--Continued**  
**(National Water-Quality Assessment Program station)**

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO-GEN, NO <sub>2</sub> +NO <sub>3</sub>	NITRO-GEN, AMMONIA	NITRO-GEN, AM- ORGANIC	NITRO-GEN, AM- TOTAL	PHOS-PHORUS DIS-SOLVED	PHOS-PHORUS DIS-SOLVED	PHOS-PHORUS DIS-SOLVED	CARBON, ORGANIC	IRON, DIS-SOLVED	MANGANESE, DIS-SOLVED	SELENIUM, DIS-SOLVED
	(MG/L AS N)	(MG/L AS N)	(AS N)	(AS N)	(MG/L AS P)	(MG/L AS P)	(MG/L AS P)	(MG/L AS C)	(UG/L AS FE)	(UG/L AS MN)	(UG/L AS SE)
OCT 16...	0.05	<0.015	<0.2	<0.2	<0.01	<0.01	0.01	3.4	0.2	15	3 <1
DEC 01...	0.09	<0.015	<0.2	<0.2	0.03	0.01	0.02	2.3	0.1	6	<1 --
11...	0.06	<0.015	<0.2	<0.2	<0.01	<0.01	0.01	2.5	0.1	6	<1 <1
JAN 22...	0.06	<0.015	<0.2	<0.2	0.01	<0.01	0.01	2.3	0.1	5	<1 --
FEB 29...	<0.05	<0.015	<0.2	<0.2	0.04	0.01	0.01	2.2	0.2	4	1 <1
MAR 20...	0.07	<0.015	<0.2	0.2	<0.01	0.02	0.02	2.2	0.3	<3	2 --
28...	0.05	<0.015	<0.2	<0.2	<0.01	0.01	0.01	2.4	0.2	<3	2 --
APR 17...	<0.05	<0.015	0.2	<0.2	0.03	<0.01	0.01	2.5	0.3	5	<1 <1
MAY 22...	0.06	<0.015	0.2	0.2	0.04	0.02	0.01	3.0	0.5	13	2 <1
31...	0.08	0.02	0.2	<0.2	0.04	0.03	0.02	3.0	0.2	12	2 --
JUN 14...	0.08	0.04	<0.2	<0.2	0.06	<0.01	0.02	2.8	0.2	13	2 --
JUL 02...	0.08	0.03	0.2	<0.2	<0.01	<0.01	0.02	2.5	0.2	7	1 <1
19...	0.08	0.02	<0.2	<0.2	<0.01	<0.01	0.01	2.4	0.3	5	2 --
AUG 19...	0.09	0.03	<0.2	<0.2	0.01	<0.01	0.01	2.6	0.2	8	2 <1
SEP 04...	0.08	<0.015	<0.2	<0.2	0.01	<0.01	<0.01	2.6	0.2	6	3 --

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET	SPE-CIFIC CON-DUCT- ANCE SECOND	TEMPER- ATURE WATER (US/CM)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET	SPE-CIFIC CON-DUCT- ANCE SECOND	TEMPER- ATURE WATER (DEG C)
OCT 11...	1710	1530		143 11.0					
JUN 19...	1205	4460		157 10.5	AUG 08...	1330	750		174 12.5

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET	SEDI-MENT, d MENT, SUS- PENDED SECOND	DIS-CHARGE, INST. CUBIC FEET	SEDI-MENT, d MENT, SUS- PENDED SECOND
OCT 16...	1420	1470	0 0.0		
DEC 01...	1110	1940	2 10		
11...	1305	1910	1 5.2		
JAN 22...	1315	975	0 0.0		
FEB 29...	1100	1010	0 0.0		
MAR 20...	1215	1410	0 0.0		
28...	1045	1320	0 0.0		
APR 17...	1345	1020	7 19		
				MAY 22...	1345 2890 20 156
				31...	1245 705 7 13
				JUN 14...	
				JUL 1150 1510 6 24	
				02...	1010 2750 3 22
				19...	1300 741 4 8.0
				AUG 1310 716 1 1.9	
				19...	
				SEP 04...	1250 741 1 2.0

d=Suspended-sediment concentration determined from a subsample split of a composite sample.

**09131495 PAONIA RESERVOIR NEAR BARDINE, CO**

LOCATION.--Lat 38°56'39", long 107°21'06", in NE<sup>1/4</sup> sec.8, T.13 S., R.89 W., Gunnison County, Hydrologic Unit 14020004, in gate house of Paonia Dam on Muddy Creek, 16 mi east of Paonia.

DRAINAGE AREA.--246 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1961 to current year. Monthend active contents provided by U.S. Bureau of Reclamation from December 1961 to September 1987. Extremes for period of record are subsequent to 1987.

REVISED RECORD.--WDR CO-92-2; 1988-91.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 6,447.50 ft above sea level (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above sea level.

REMARKS.--Reservoir is formed by an earthfill dam. Storage began in December 1961; dam completed January 1962. Capacity 20,950 acre-ft, 1966 survey, between elevation 6,290.0 ft streambed at dam, and 6,447.5 ft, crest of spillway. Dead storage below elevation 6,358.0 ft, 2,440 acre-ft. Inactive storage below elevation 6360.0 ft, 2,620 acre-ft. Figures published prior to 1988 water year are active contents; figures given beginning 1988 water year are live contents.

COOPERATION.--Capacity tables provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 17,460 acre-ft, June 6, 1995, elevation 6,449.76 ft; minimum contents, 117 acre-ft, Apr. 14, 1996, elevation 6,360.72 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 16,960 acre-ft, May 17, elevation, 6,448.26 ft; minimum contents, 117 acre-ft, Apr. 14, elevation, 6,360.72 ft.

## MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30. . . . .	6,414.91	7,290	
Oct. 31. . . . .	6,415.18	7,360	+70
Nov. 30. . . . .	6,404.56	4,980	-2,380
Dec. 31. . . . .	6,411.05	6,380	+1,400
CAL YR 1995. . . . .	-	-	+2,100
Jan. 31. . . . .	6,418.42	8,160	+1,780
Feb. 29. . . . .	6,424.51	9,760	+1,600
Mar. 31. . . . .	6,388.99	2,350	-7,410
Apr. 30. . . . .	6,394.13	3,130	+780
May 31. . . . .	6,448.13	16,910	+13,780
June 30. . . . .	6,447.87	16,830	-80
July 31. . . . .	6,441.77	14,850	-1980
Aug. 31. . . . .	6,407.86	5,660	-9,190
Sept. 30. . . . .	6,381.33	1,440	-4,220
WTR YR 1996. . . . .	-	-	-5,850

## GUNNISON RIVER BASIN

**09132500 NORTH FORK GUNNISON RIVER NEAR SOMERSET, CO**

LOCATION--Lat 38°55'33", long 107°26'01", in SE<sup>1</sup>/4 SW<sup>1</sup>/4 sec.10, T.13 S., R.90 W., Gunnison County, Hydrologic Unit 14020004, on left bank 2.3 mi east of Somerset and 4.8 mi upstream from Hubbard Creek.

DRAINAGE AREA--526 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1933 to current year. Monthly discharge only for some periods, published in WSP 1313. Water-quality data available, October 1977 to September 1982. Sediment data available, November 1978 to September 1982.

REVISED RECORDS.--WSP 2124: Drainage area. WDR CO-77-2: 1976.

GAGE.--Satellite data-collection platform. Elevation of gage is 6,280 ft above sea level, from topographic map. Prior to Oct. 1, 1982, at various sites 0.8 mi downstream, at different datums. See WDR CO-81-2, for history of changes.

REMARKS.--Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by small diversions for irrigation in nearby drainage areas, irrigation of about 3,000 acres upstream from station, storage in Overland Reservoir, capacity, 6,280 acre-ft, and storage in Paonia Reservoir, capacity, 18,300 acre-ft, since February 1962. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e161	157	120	e60	e66	200	566	1700	989	e540	243	226
2	e150	162	121	e56	e70	198	698	1520	1100	476	241	226
3	e151	145	118	e56	e64	199	798	1440	1290	432	248	228
4	e151	160	119	e62	e70	201	756	1580	1430	416	250	229
5	e148	159	101	e60	e74	201	776	1910	1560	405	246	230
6	e140	160	80	e58	e72	201	821	2170	1640	381	247	235
7	140	157	75	e58	e72	198	913	2280	1570	360	253	230
8	140	159	74	e60	e72	200	1110	2340	1510	335	256	220
9	142	161	75	e58	e84	199	1540	2570	1440	317	259	222
10	144	161	65	e58	e96	198	1710	2410	1440	299	259	226
11	126	146	71	e56	e94	207	2010	2280	1390	276	258	226
12	140	157	77	e54	e90	231	1760	2490	1280	254	255	227
13	170	157	70	e54	e100	287	1620	2680	1220	237	252	233
14	167	157	69	e56	122	323	1240	2770	1150	222	258	233
15	158	157	47	e58	121	319	456	2710	1190	238	257	233
16	154	157	e54	e60	124	318	459	2800	1060	233	258	224
17	153	157	e50	e58	125	317	655	3140	993	243	255	161
18	150	151	e48	e56	125	354	855	2930	938	246	256	103
19	150	145	e47	e60	125	393	853	2830	871	247	256	107
20	147	144	e48	e60	132	393	773	2660	830	222	255	107
21	144	144	e52	e58	221	404	738	2100	975	224	257	104
22	144	144	e47	e62	292	455	711	2020	989	238	250	104
23	142	144	e44	e62	217	501	641	1940	854	235	245	115
24	110	139	e43	e62	175	484	802	1680	724	241	250	112
25	86	138	e49	e60	163	447	1340	1400	657	248	243	109
26	86	136	e52	e60	152	416	1590	1340	606	250	246	105
27	86	126	e52	e62	181	411	1690	1120	e600	248	238	104
28	86	116	e54	e68	207	412	1790	1030	e580	247	226	103
29	120	128	e58	e70	206	383	1600	933	e570	253	229	102
30	154	119	e58	e68	---	351	1580	885	e560	250	228	99
31	150	---	e62	e66	---	394	---	884	---	247	226	---
TOTAL	4290	4443	2100	1856	3712	9795	32851	62542	32006	9060	7700	5183
MEAN	138	148	67.7	59.9	128	316	1095	2017	1067	292	248	173
MAX	170	162	121	70	292	501	2010	3140	1640	540	259	235
MIN	86	116	43	54	64	198	456	884	560	222	226	99
AC-FT	8510	8810	4170	3680	7360	19430	65160	124100	63480	17970	15270	10280

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1996, BY WATER YEAR (WY)

MEAN	117	92.3	76.2	64.8	70.1	149	726	1932	1496	459	198	150
MAX	466	318	271	166	180	721	1736	3993	4095	1834	438	319
(WY)	1987	1987	1966	1966	1986	1986	1986	1984	1957	1995	1957	1986
MIN	47.9	35.2	33.1	29.6	30.4	40.2	166	314	179	64.6	48.1	47.6
(WY)	1957	1990	1978	1990	1978	1964	1977	1977	1934	1934	1977	1934

## SUMMARY STATISTICS

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1934 - 1996
ANNUAL TOTAL	299223	175538	
ANNUAL MEAN	820	480	462
HIGHEST ANNUAL MEAN			829
LOWEST ANNUAL MEAN			114
HIGHEST DAILY MEAN	4600	Jun 6	7080
LOWEST DAILY MEAN	35	Jan 1	17
ANNUAL SEVEN-DAY MINIMUM	47	Dec 18	Feb 17 1978
INSTANTANEOUS PEAK FLOW		3230	9220
INSTANTANEOUS PEAK STAGE		5.21	May 24 1984
ANNUAL RUNOFF (AC-FT)	593500	348200	334800
10 PERCENT EXCEEDS	2810	1510	1520
50 PERCENT EXCEEDS	283	226	132
90 PERCENT EXCEEDS	55	60	52

e-Estimated.

a-From outside high-water mark.

## 09134000 MINNESOTA CREEK NEAR PAONIA, CO

LOCATION.--Lat 38°52'12", long 107°30'13", in SE<sup>1</sup>/4 NE<sup>1</sup>/4 of sec.1, T.14 S., R.91 W., Delta County, Hydrologic Unit 14020004, on right bank 0.25 mi downstream from South Fork, 6 mi upstream from mouth, and 4.5 mi east of Paonia.

DRAINAGE AREA.--41.3 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1936 to September 1947, October 1985 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,200 ft above sea level, from topographic map. Apr. 1936 to Oct. 1941, staff gages at different datums. Oct. 1941 to Sept. 1947, water-stage recorder at different datum. Dec. 1985 to present, water-stage recorder, at datum 2.0 ft, lower.

REMARKS.--Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by two small storage reservoirs, one of which obtains water from the East Muddy Creek Basin. Small trans-basin diversion from Coal Creek into Minnesota Creek. Diversions upstream from station for irrigation of about 100 acres. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	6.7	e4.5	e4.1	e4.1	e5.0	12	25	43	27	23	11
2	8.5	5.7	e4.5	e4.4	e4.2	e5.2	13	28	40	28	20	9.6
3	10	4.9	e4.2	e4.3	e4.0	e5.2	14	33	40	27	16	9.0
4	12	5.0	e4.4	e4.2	e4.1	5.5	12	35	39	27	13	8.7
5	14	5.5	e4.4	e4.4	4.5	5.6	11	42	40	26	14	6.6
6	16	5.0	e4.4	e4.5	4.6	5.4	13	45	41	25	15	7.0
7	17	5.0	e4.4	e4.6	4.6	6.0	15	43	39	24	14	5.2
8	17	5.5	e4.3	e4.6	4.6	5.6	19	45	37	24	14	4.0
9	17	5.1	e4.4	e4.6	4.7	5.6	25	47	37	24	14	3.8
10	15	e4.9	e4.2	e4.5	4.8	5.8	25	47	41	24	13	3.7
11	13	e4.6	e4.0	4.5	e4.5	6.4	28	48	42	24	13	3.8
12	12	e4.8	e3.8	4.4	e4.4	7.0	22	53	41	23	13	4.9
13	10	e4.9	e3.7	4.5	e4.5	6.4	21	59	39	23	13	5.8
14	9.0	e4.9	e3.5	4.5	e4.6	5.9	16	65	36	21	12	4.9
15	7.9	e4.7	e3.6	4.5	e4.8	6.3	15	67	36	20	12	5.7
16	6.9	e4.6	e3.8	e4.3	e4.7	6.9	15	85	34	20	12	4.5
17	5.7	e4.8	e3.7	e4.2	e4.8	6.3	15	97	33	20	12	5.9
18	5.0	e4.8	e3.4	e4.2	5.2	5.4	16	98	31	20	12	6.3
19	5.3	e4.7	e3.3	e4.3	5.0	5.8	15	100	30	20	12	6.4
20	5.2	e4.7	e3.4	e4.3	6.0	6.0	14	97	29	20	11	5.5
21	5.3	e4.6	e3.6	e4.2	e10	7.0	13	94	31	20	11	5.1
22	5.6	e4.7	e3.4	4.5	e9.6	8.2	13	87	32	21	10	4.8
23	5.5	e4.6	e3.2	4.5	e9.4	7.7	14	79	31	22	10	5.4
24	5.4	e4.4	e3.3	4.5	9.1	6.2	20	70	32	22	10	5.4
25	5.4	e4.6	e3.5	4.5	7.2	5.7	28	62	32	22	9.9	5.2
26	5.5	e4.5	e3.6	e4.0	e5.8	5.9	32	61	31	21	9.9	5.1
27	5.5	e4.3	e3.5	e4.0	e5.4	6.1	34	57	30	20	10	5.0
28	5.3	e4.3	e3.9	4.5	e5.2	6.9	32	54	29	20	10	5.0
29	5.3	e4.5	e4.2	4.5	e5.0	8.1	27	50	29	21	9.9	4.9
30	5.3	e4.5	e4.5	4.4	---	8.5	25	50	28	21	9.7	4.8
31	5.3	---	e4.3	e4.3	---	9.1	---	49	---	25	9.6	---
TOTAL	272.9	145.8	120.9	135.8	159.4	196.7	574	1872	1053	702	388.0	173.0
MEAN	8.80	4.86	3.90	4.38	5.50	6.35	19.1	60.4	35.1	22.6	12.5	5.77
MAX	17	6.7	4.5	4.6	10	9.1	34	100	43	28	23	11
MIN	5.0	4.3	3.2	4.0	4.0	5.0	11	25	28	20	9.6	3.7
AC-FT	541	289	240	269	316	390	1140	3710	2090	1390	770	343

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1996, BY WATER YEAR (WY)

MEAN	6.12	5.39	4.47	3.60	4.13	7.39	29.1	96.3	76.2	29.4	15.3	8.01
MAX	16.6	12.9	9.08	5.80	8.62	19.2	89.6	199	194	88.2	29.7	19.8
(WY)	1942	1987	1987	1942	1986	1986	1942	1993	1993	1995	1993	1993
MIN	3.28	2.50	1.78	1.71	2.40	3.32	7.18	23.6	25.2	11.6	4.49	3.57
(WY)	1995	1941	1990	1990	1992	1991	1990	1990	1990	1939	1990	1946

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1937 - 1996

ANNUAL TOTAL	13923.4	5793.5	
ANNUAL MEAN	38.1	15.8	
HIGHEST ANNUAL MEAN			
LOWEST ANNUAL MEAN			
HIGHEST DAILY MEAN	a218	Jun 15	23.9
LOWEST DAILY MEAN	e,b2.8	Jan 1	46.9
ANNUAL SEVEN-DAY MINIMUM	3.0	Jan 12	7.97
INSTANTANEOUS PEAK FLOW			
INSTANTANEOUS PEAK STAGE			
ANNUAL RUNOFF (AC-FT)	27620	11490	340 May 28 1993
10 PERCENT EXCEEDS	138	39	1.0 Nov 14 1936
50 PERCENT EXCEEDS	15	7.0	1.4 Jan 16 1990
90 PERCENT EXCEEDS	3.7	4.3	359 May 28 1993
			c3.24 May 28 1993
			17290
			71
			7.0
			3.0

e-Estimated.

a-Also occurred Jun 17.

b-Also occurred Jan 17.

c-Maximum gage height, 3.70 ft, May 22, 1942, site and datum then in use.

## GUNNISON RIVER BASIN

## 09135900 LEROUX CREEK AT HOTCHKISS, CO

LOCATION.--Lat 38°47'53", long 107°43'53", in NW<sup>1/4</sup>NE<sup>1/4</sup> sec.36, T.14 S., R.93 W., Delta County, Hydrologic Unit 14020004, on left bank at upstream side of culvert, 0.3 mi west of Hotchkiss city limits, and 0.5 mi upstream from mouth.

DRAINAGE AREA.--66.7 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1976 to September 1996 (discontinued).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 5,315 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharge, which are poor. Natural flow of stream is affected by diversions upstream from station for irrigation and by return flow from irrigated area upstream from station. Mostly return flow after June. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	17	9.7	7.7	7.8	4.3	4.5	12	2.5	2.8	3.3	4.7
2	13	16	9.6	e7.3	6.7	4.3	3.9	4.5	2.6	3.4	3.2	4.4
3	13	15	9.5	e7.3	6.4	4.4	2.7	10	2.4	3.2	3.4	4.4
4	13	15	9.5	e7.2	6.6	4.4	1.8	27	3.3	3.0	3.4	4.5
5	13	15	9.4	e7.2	6.6	4.3	1.7	54	4.3	3.1	3.4	3.9
6	13	15	9.3	7.4	8.2	4.5	1.4	67	4.2	3.4	3.2	4.3
7	15	14	9.4	7.4	7.8	4.3	2.3	53	3.9	3.4	3.1	3.7
8	19	14	9.6	7.4	7.8	4.2	9.5	58	3.9	3.3	3.3	4.2
9	19	14	9.3	7.4	7.4	4.2	27	69	3.8	3.9	3.2	7.5
10	20	13	9.2	7.3	7.1	4.2	28	32	3.8	6.2	3.5	6.6
11	20	13	9.0	7.1	6.8	4.2	27	48	4.3	7.5	3.3	4.1
12	20	13	9.0	7.1	6.7	3.8	16	83	4.3	8.1	3.7	6.0
13	20	13	9.0	7.1	6.8	3.8	17	116	4.4	8.0	3.7	8.5
14	20	13	8.8	6.9	6.6	3.8	8.2	118	4.3	8.4	3.3	8.0
15	21	12	8.7	6.8	6.5	3.8	4.2	112	4.7	6.4	2.1	8.0
16	22	12	8.8	6.8	6.0	3.7	16	137	5.0	4.0	2.7	7.9
17	20	12	8.6	7.3	4.8	3.8	43	209	6.1	4.9	2.7	8.1
18	19	12	8.5	6.7	4.8	3.7	27	165	6.6	4.6	3.2	9.1
19	19	11	8.4	6.7	4.9	3.8	23	133	6.5	5.8	3.3	8.8
20	19	11	8.4	6.5	5.5	4.2	17	78	5.2	8.7	3.5	8.6
21	19	11	8.4	6.5	8.4	4.1	14	23	3.2	7.9	3.3	8.5
22	19	11	8.7	6.5	5.8	3.8	9.3	8.4	3.0	8.0	3.5	8.0
23	20	11	8.4	6.4	5.1	3.8	5.2	13	2.7	6.3	3.6	8.3
24	20	11	8.3	6.3	4.9	4.2	6.5	3.7	3.2	4.3	3.8	6.5
25	20	11	8.0	6.2	4.5	4.6	19	3.8	6.9	3.1	4.2	4.1
26	20	10	7.8	6.0	4.4	4.7	46	3.5	7.1	2.8	5.4	4.1
27	19	10	7.7	6.0	4.4	4.3	57	3.1	8.0	3.8	5.6	4.3
28	20	10	7.7	6.0	4.5	4.8	52	3.4	9.0	5.7	5.6	6.5
29	20	10	7.5	5.8	4.4	4.6	9.8	3.0	8.5	4.2	5.5	8.4
30	20	9.9	7.6	5.9	---	4.7	7.1	2.6	4.8	3.0	5.4	8.3
31	17	---	7.7	10	---	4.4	---	2.4	---	3.3	5.2	---
TOTAL	565	374.9	269.5	214.2	178.2	129.7	507.1	1655.4	142.5	154.5	115.6	192.3
MEAN	18.2	12.5	8.69	6.91	6.14	4.18	16.9	53.4	4.75	4.98	3.73	6.41
MAX	22	17	9.7	10	8.4	4.8	57	209	9.0	8.7	5.6	9.1
MIN	13	9.9	7.5	5.8	4.4	3.7	1.4	2.4	2.4	2.8	2.1	3.7
AC-FT	1120	744	535	425	353	257	1010	3280	283	306	229	381

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1996, BY WATER YEAR (WY)

MEAN	19.4	15.5	11.9	9.96	9.31	10.6	42.3	112	87.4	7.90	6.28	8.97
MAX	84.2	51.6	25.2	21.2	28.3	47.7	165	340	356	46.4	11.4	35.9
(WY)	1987	1987	1987	1987	1987	1987	1987	1993	1995	1995	1995	1982
MIN	1.95	2.85	3.35	2.77	2.80	2.74	2.44	.96	.89	.85	1.32	1.10

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1976 - 1996

ANNUAL TOTAL	17458.9	4498.9										
ANNUAL MEAN	47.8	12.3										
HIGHEST ANNUAL MEAN												
LOWEST ANNUAL MEAN												
HIGHEST DAILY MEAN	a720	Jun 15										
LOWEST DAILY MEAN	1.3	May 4										
ANNUAL SEVEN-DAY MINIMUM	2.2	May 4										
INSTANTANEOUS PEAK FLOW												
INSTANTANEOUS PEAK STAGE												
ANNUAL RUNOFF (AC-FT)	34630	8920										
10 PERCENT EXCEEDS	165	20										
50 PERCENT EXCEEDS	10	6.8										
90 PERCENT EXCEEDS	4.1	3.3										
		11.82										
		20890										
		59										
		8.4										
		3.2										

e-Estimated.

a-Estimated during period of no gage-height record, Jun 8-15.

## 09143000 SURFACE CREEK NEAR CEDAREDGE, CO

LOCATION.--Lat 38°59'05", long 107°51'13", in NW<sup>1/4</sup>NW<sup>1/4</sup> sec.25, T.12 S., R.94 W., Delta County, Hydrologic Unit 14020005, on left bank 5 ft downstream from private bridge, 1.4 mi downstream from Caesar Creek, and 7.0 mi northeast of Cedaredge.

DRAINAGE AREA.--27.4 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1939 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WDR CO-83-2: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 8,261 ft above sea level, from topographic map.

REMARKS.-- Records good except for estimated daily discharges, which are poor. Flow regulated by many small reservoirs. Some water imported from Leon Lake in Plateau Creek drainage. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	7.2	e3.8	e4.1	e4.5	e5.3	e11	92	71	32	50	37
2	94	5.8	e3.7	e3.9	e4.4	e5.4	e12	101	74	30	40	29
3	89	8.2	e3.8	e3.7	e4.4	e5.4	e10	109	77	35	41	29
4	86	5.9	e4.0	e3.6	e4.3	e5.3	8.4	127	85	32	40	30
5	82	6.2	e3.9	e3.6	e4.5	e5.3	8.6	151	117	40	34	31
6	77	5.9	e3.8	e3.6	e4.6	e5.2	11	141	113	42	35	32
7	71	5.3	e3.8	e3.6	e4.7	e5.3	15	134	112	41	73	30
8	43	6.4	e3.5	e3.8	e4.5	e5.4	22	146	107	46	70	28
9	35	6.6	e5.0	e3.7	e5.0	e5.5	41	127	104	48	63	28
10	33	5.4	e5.4	e3.7	e5.2	e5.6	44	117	83	64	61	28
11	30	8.1	e5.5	e3.8	e5.3	e5.8	33	129	82	61	61	26
12	28	5.7	e5.8	e3.9	e5.5	e6.2	20	145	85	58	45	25
13	26	5.5	e6.0	e4.2	e6.0	e6.4	17	154	79	59	43	25
14	21	6.2	e5.9	e4.6	e5.8	e6.4	15	143	70	58	57	26
15	19	6.3	e5.8	e4.4	e5.8	e6.5	15	149	75	48	56	24
16	14	5.9	e5.6	e4.0	e5.7	e6.7	17	159	67	47	42	18
17	13	5.9	e5.4	e4.1	e5.7	e6.1	18	168	60	73	41	20
18	12	6.8	e5.5	e4.5	e5.7	e6.7	15	152	57	71	40	27
19	13	6.5	e5.4	e4.6	e5.8	e7.4	15	144	57	56	38	26
20	14	6.4	e5.3	e4.5	e6.2	e8.0	14	131	50	53	38	25
21	13	6.5	e5.0	e4.5	e6.4	e10	13	119	57	50	45	25
22	12	e5.0	e4.7	e4.8	e5.6	e12	12	115	57	37	46	24
23	12	e4.4	e4.5	e5.0	e5.4	e8.8	15	110	50	41	27	16
24	13	e6.8	e4.1	e4.7	e5.0	e8.8	33	115	44	56	25	15
25	11	e5.0	e4.2	e4.5	e4.9	e7.0	61	114	43	59	24	15
26	11	e3.6	e4.0	e4.3	e4.8	e6.8	75	106	65	64	22	14
27	20	e4.5	e3.8	e4.3	e5.0	e6.7	88	86	73	65	25	14
28	20	e6.0	e3.7	e4.4	e5.2	e7.0	70	79	71	65	33	14
29	19	e4.0	e4.0	e4.5	e5.3	e7.0	46	78	62	56	33	14
30	17	e3.8	e4.2	e4.8	---	e8.0	63	82	55	53	38	14
31	15	---	e4.3	e4.6	---	e9.1	---	72	---	52	38	---
TOTAL	1039	175.8	143.4	130.3	151.2	211.1	838.0	3795	2202	1592	1324	709
MEAN	33.5	5.86	4.63	4.20	5.21	6.81	27.9	122	73.4	51.4	42.7	23.6
MAX	94	8.2	6.0	5.0	6.4	12	88	168	117	73	73	37
MIN	11	3.6	3.5	3.6	4.3	5.2	8.4	72	43	30	22	14
AC-FT	2060	349	284	258	300	419	1660	7530	4370	3160	2630	1410

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1996, BY WATER YEAR (WY)

MEAN	17.2	7.67	5.43	5.07	5.11	6.79	33.8	126	138	77.8	55.0	33.9
MAX	58.5	35.2	16.7	14.7	12.5	15.2	89.5	258	343	191	93.4	65.5
(WY)	1942	1942	1987	1987	1987	1972	1943	1952	1983	1983	1983	1983
MIN	6.25	1.64	1.26	.92	1.11	1.57	9.13	29.2	16.0	12.2	15.9	11.0
(WY)	1978	1990	1977	1977	1977	1977	1964	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1939 - 1996
ANNUAL TOTAL	24407.3	12310.8	
ANNUAL MEAN	66.9	33.6	42.9
HIGHEST ANNUAL MEAN			75.7
LOWEST ANNUAL MEAN			10.6
HIGHEST DAILY MEAN	695	Jun 16	Jun 16 1995
LOWEST DAILY MEAN	e1.9	Jan 1	Jan 15 1977
ANNUAL SEVEN-DAY MINIMUM	2.4	Feb 14	Jan 9 1977
INSTANTANEOUS PEAK FLOW		246	Jun 15 1995
INSTANTANEOUS PEAK STAGE		2.58	a3.79 Jun 15 1995
ANNUAL RUNOFF (AC-FT)	48410	24420	31100
10 PERCENT EXCEEDS	200	85	114
50 PERCENT EXCEEDS	15	15	16
90 PERCENT EXCEEDS	2.8	4.3	3.7

e-Estimated.

a-Maximum gage height, 5.10 ft, Apr 13, 1958, ice jam.

## GUNNISON RIVER BASIN

## 09143500 SURFACE CREEK AT CEDAREDGE, CO

LOCATION.--Lat 38°54'06", long 107°55'14", in SW<sup>1/4</sup>SE<sup>1/4</sup> sec.20, T.13 S., R.94 W., Delta County, Hydrologic Unit 14020005, on left bank at Cedaredge, 700 ft east of State Highway 65, and 8.5 mi upstream from mouth.

DRAINAGE AREA.--39.0 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1916 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WRD CO-83-2: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry, and concrete control. Elevation of gage is 6,220 ft above sea level, from topographic map. Prior to June 8, 1917, nonrecording gage at present site at datum 0.50 ft, higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by diversions to and from nearby streams, many small storage reservoirs, diversions for irrigation, and return flow from irrigated areas. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	6.1	1.5	e3.0	2.3	7.3	11	81	52	22	23	7.7
2	77	6.5	1.4	e2.9	2.3	5.0	16	66	55	21	19	9.3
3	74	4.2	1.3	e2.7	2.3	5.2	13	70	59	19	22	9.7
4	71	4.8	1.6	e2.5	2.3	3.0	12	90	65	16	22	13
5	67	3.7	1.5	2.4	2.3	2.7	11	108	76	23	19	15
6	62	3.5	1.4	e2.3	2.4	2.8	16	100	67	25	18	17
7	57	3.1	1.4	e2.4	2.5	3.2	25	88	66	24	32	15
8	37	2.3	1.3	e2.5	2.5	3.1	43	94	62	27	32	12
9	27	2.7	1.0	e2.4	2.5	2.7	72	89	60	28	29	12
10	25	2.4	1.0	e2.3	2.5	3.0	73	84	53	38	28	11
11	25	2.2	.94	e2.3	2.4	3.7	63	88	56	37	26	7.5
12	24	2.5	1.4	e2.3	2.3	3.9	41	91	55	32	26	7.9
13	22	2.5	1.4	e2.3	2.3	3.1	33	93	57	33	27	15
14	18	2.8	1.5	e2.4	2.4	2.6	25	81	57	31	36	18
15	15	3.0	1.2	e2.5	2.6	2.5	23	82	63	30	35	17
16	11	3.1	2.8	e2.5	2.5	2.8	29	86	58	30	24	15
17	8.8	3.0	3.5	e2.4	2.5	3.1	33	91	45	40	21	19
18	7.1	2.7	4.7	e2.3	2.6	2.6	23	77	38	38	21	22
19	5.8	2.7	3.8	e2.3	2.3	2.8	23	71	41	27	19	18
20	11	2.1	e2.8	e2.4	2.4	2.8	21	66	35	22	19	19
21	11	1.8	e2.5	e2.4	8.7	3.1	19	62	44	19	21	21
22	11	2.3	e2.4	e2.4	7.0	5.8	17	63	46	20	22	20
23	11	1.9	e2.3	e2.3	5.4	6.6	22	60	36	26	15	17
24	11	1.4	e2.2	e2.2	4.6	4.2	52	67	33	37	12	16
25	11	2.5	e2.3	e2.2	3.6	3.2	77	68	30	39	12	14
26	10	1.6	e2.4	e2.1	2.7	3.2	86	64	37	43	5.8	14
27	13	1.2	e2.5	2.0	3.8	3.1	107	59	43	42	6.5	15
28	8.3	1.3	e2.6	2.0	3.9	3.3	88	59	44	43	9.8	15
29	8.1	2.2	e2.8	2.1	8.3	3.3	53	55	36	36	8.0	15
30	5.2	1.5	e3.0	2.2	--	4.4	67	59	30	32	10	13
31	4.4	--	e3.2	2.3	--	6.6	--	53	--	26	8.0	--
TOTAL	805.7	83.6	65.64	73.3	96.2	114.7	1194	2365	1499	926	628.1	440.1
MEAN	26.0	2.79	2.12	2.36	3.32	3.70	39.8	76.3	50.0	29.9	20.3	14.7
MAX	77	6.5	4.7	3.0	8.7	7.3	107	108	76	43	36	22
MIN	4.4	1.2	.94	2.0	2.3	2.5	11	53	30	16	5.8	7.5
AC-FT	1600	166	130	145	191	228	2370	4690	2970	1840	1250	873

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1918 - 1996, BY WATER YEAR (WY)

MEAN	10.6	5.20	3.40	3.19	3.31	4.71	34.1	109	84.0	36.0	22.6	15.2
MAX	49.3	27.3	15.0	14.0	12.8	21.3	83.7	302	313	112	39.3	29.9
(WY)	1942	1942	1926	1987	1987	1986	1942	1920	1983	1983	1975	1982
MIN	2.00	.95	.50	.40	.40	.65	1.00	28.4	8.83	5.95	8.77	3.37
(WY)	1919	1922	1934	1940	1940	1954	1920	1977	1977	1977	1977	1934

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1918 - 1996
ANNUAL TOTAL	16636.14	8291.34	
ANNUAL MEAN	45.6	22.7	27.7
HIGHEST ANNUAL MEAN			62.5
LOWEST ANNUAL MEAN			7.87
HIGHEST DAILY MEAN	508	Jun 16	640
LOWEST DAILY MEAN	.94	Dec 11	a .00
ANNUAL SEVEN-DAY MINIMUM	1.2	Dec 6	.11
INSTANTANEOUS PEAK FLOW		188 May 5	b 1190
INSTANTANEOUS PEAK STAGE		2.06 May 5	c 2.50
ANNUAL RUNOFF (AC-FT)	33000	16450	20060
10 PERCENT EXCEEDS	140	65	73
50 PERCENT EXCEEDS	12	12	9.4
90 PERCENT EXCEEDS	2.4	2.3	2.0

e-Estimated.

a-No flow at times some years.

b-From rating curve extended above 640 ft<sup>3</sup>/s.

c-Maximum gage height, 3.10 ft, May 21, 1993.

**09144250 GUNNISON RIVER AT DELTA, CO**

LOCATION.--Lat 38°45'01", long 108°04'06", in SE<sup>1/4</sup>NE<sup>1/4</sup> sec.13, T.15 S., R.96 W., Delta County, Hydrologic Unit 14020005, on left bank near upstream side of U.S. Highway 50 bridge at north edge of Delta.

DRAINAGE AREA.--5,628 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1976 to current year. Gage-height records collected at this site 1912-77 (flood seasons only) are in reports of the National Weather Service.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 4,919.97 ft above sea level, National Weather Service Datum (levels by National Weather Service). Prior to May 1976 nonrecording gage at present site and datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power developments, and many diversions for irrigation. Auxiliary gage established 0.7 mi downstream to collect streamflow data during bridge construction at principal site, June 27, 1991 to September 30, 1992. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum gage height observed, 13.5 ft, June 6, 1957, from National Weather Service wire-weight gage at present datum, (discharge not determined).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2160	1940	2280	2230	1450	1320	2170	4360	1680	3850	963	1040
2	2070	1940	2270	2370	1310	1330	2450	4370	1760	3250	944	1050
3	1910	1890	2230	2410	1250	1310	2430	4190	1950	3100	927	1060
4	1900	1880	2260	2390	1210	1320	2340	4240	2080	2860	944	1070
5	1900	1890	2260	2430	1270	1320	2290	4720	2140	2780	938	1090
6	1900	2260	2210	2400	1300	1370	2360	5240	2240	2520	903	1150
7	1870	2410	2180	2410	1290	1060	2540	5560	2240	2470	906	1210
8	1860	2360	2200	2390	1330	889	2760	5810	2130	2440	937	1170
9	1830	2360	2200	2200	1350	1030	3360	6060	2120	2180	970	1160
10	1800	2370	2160	2010	1350	1330	3780	6030	2050	2020	1010	1190
11	1800	2330	2160	1770	1320	1360	4110	5680	2060	1850	1020	1210
12	1770	2310	2170	1520	1290	1440	3780	5960	2280	1790	1000	1230
13	1790	2330	2190	1210	1270	1470	3530	6420	2450	1780	974	1240
14	1790	2330	2180	1180	1280	1570	3090	6560	2560	1780	941	1250
15	1790	2320	2160	1180	1270	1960	2200	6440	3050	1870	928	1250
16	1790	2320	2150	1110	1280	2100	1870	6500	3190	1630	937	1250
17	1880	2300	2170	1230	1290	2120	1930	7110	3490	1480	985	1250
18	1860	2300	2130	1230	1320	2120	2170	6960	4950	1300	1010	1280
19	1860	2310	2030	1200	1310	2060	2230	6640	5700	1180	1020	1320
20	1850	2300	2130	1180	1280	1970	2040	6500	5510	1020	1010	1270
21	1850	2300	2120	1180	1750	1990	1950	5750	5270	953	1020	1250
22	1880	2310	2140	1180	1820	2060	1860	5370	5440	901	1030	1240
23	1910	2310	2110	1200	1610	2210	1860	4920	5290	864	1010	1240
24	1900	2310	2100	1180	1430	2190	2420	4270	4930	855	1030	1220
25	1850	2310	2110	1190	1370	2100	3260	3590	4760	e850	1030	1220
26	1840	2300	2110	1160	1330	2060	3910	3100	4650	e865	1040	1240
27	1810	2280	2130	1120	1200	2010	3980	2680	4460	e880	1020	1270
28	1780	2210	2140	1160	1310	2000	4190	2170	4280	e900	1030	1300
29	1780	2250	2170	1200	1330	2030	3800	1860	4100	e920	1040	1290
30	1830	2160	2180	1220	---	1970	4040	1680	3980	948	1010	1290
31	1860	---	2190	1310	---	2010	---	1690	---	962	1030	---
TOTAL	57670	67190	67220	49150	39170	53079	84700	152430	102790	53048	30557	36300
MEAN	1860	2240	2168	1585	1351	1712	2823	4917	3426	1711	986	1210
MAX	2160	2410	2280	2430	1820	2210	4190	7110	5700	3850	1040	1320
MIN	1770	1880	2030	1110	1200	889	1860	1680	1680	850	903	1040
AC-FT	114400	133300	133300	97490	77690	105300	168000	302300	203900	105200	60610	72000

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1996, BY WATER YEAR (WY)

MEAN	1356	1525	1620	1640	1699	1927	2518	4706	4295	2318	1164	1184
MAX	2833	3156	3103	3349	3381	3696	6641	11090	13520	10110	2752	2496
(WY)	1987	1987	1987	1985	1985	1985	1985	1984	1984	1995	1984	1986
MIN	398	467	440	480	491	506	366	411	331	275	269	335

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1976 - 1996

ANNUAL TOTAL	1361990	793304										
ANNUAL MEAN	3731	2167										
HIGHEST ANNUAL MEAN												
LOWEST ANNUAL MEAN												
HIGHEST DAILY MEAN	14100	Jul 4	7110	May 17								
LOWEST DAILY MEAN	667	Sep 6	e850	Jul 25								
ANNUAL SEVEN-DAY MINIMUM	779	Jan 18	874	Jul 22								
INSTANTANEOUS PEAK FLOW			7390	May 17								
INSTANTANEOUS PEAK STAGE			7.42	May 17								
ANNUAL RUNOFF (AC-FT)	2702000		1574000							1586000		
10 PERCENT EXCEEDS	10600		4130							4230		
50 PERCENT EXCEEDS	2160		1900							1540		
90 PERCENT EXCEEDS	853		1020							510		

e-Estimated.

## GUNNISON RIVER BASIN

**09146200 UNCOMPAGRE RIVER NEAR RIDGWAY, CO**

LOCATION.--Lat 38°11'02", long 107°44'43", in SW<sup>1/4</sup>NE<sup>1/4</sup> sec. 4, T.45 N., R.8 W., Ouray County, Hydrologic Unit 14020006, on right bank 15 ft downstream from bridge, 0.2 mi downstream from Dry Creek, 0.5 mi upstream from Dallas Creek, and 2.3 mi north of Ridgway.

DRAINAGE AREA--149 mi<sup>2</sup>.

## **WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--October 1958 to current year.

**REVISED RECORDS.--WSP 2124: Drainage area.**

GAGE--Water-stage recorder with satellite telemetry. Datum of gage is 6,877.58 ft above sea level, (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good except for estimated daily discharges, which are fair. Diversions for irrigation upstream from station. Water is imported upstream from station in some years by Red Mountain ditch from Mineral Creek in San Juan River basin.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996 DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	85	69	48	47	47	63	190	282	304	109	62
2	122	82	67	e47	47	47	76	221	372	296	111	62
3	115	73	64	e48	e41	46	83	267	463	272	112	62
4	114	74	65	e48	e42	48	74	325	539	265	103	61
5	116	72	64	e47	43	48	73	390	581	263	100	63
6	113	73	63	e46	45	48	73	427	673	253	95	69
7	112	73	62	e46	46	44	77	427	704	241	96	67
8	108	72	62	e46	46	47	86	433	654	223	96	65
9	104	72	60	47	48	48	129	444	592	226	95	71
10	103	76	59	48	50	51	150	377	554	254	93	69
11	102	69	59	e46	49	54	153	421	526	227	87	68
12	99	76	61	e45	49	57	120	523	470	204	79	70
13	98	76	60	e46	49	55	116	571	447	185	76	76
14	93	77	60	e46	52	51	102	564	581	171	75	96
15	92	75	54	e46	53	50	102	604	602	156	73	139
16	89	73	55	47	55	51	110	767	474	155	73	104
17	87	71	54	51	56	52	102	841	450	170	77	105
18	86	69	53	44	58	48	95	811	453	189	79	107
19	85	66	51	46	54	46	90	832	428	170	80	118
20	80	65	51	48	67	48	85	840	425	157	78	116
21	81	63	50	e46	72	52	81	725	579	149	75	108
22	84	64	e47	48	68	58	78	703	648	144	72	103
23	82	63	e44	47	57	60	82	614	492	139	70	99
24	85	60	e41	46	54	55	117	431	405	137	72	91
25	81	61	e43	46	52	53	162	338	360	136	72	87
26	80	64	e45	e42	51	55	209	283	324	134	72	87
27	79	62	e45	e40	47	54	231	243	368	132	73	87
28	78	60	e46	45	47	55	238	206	405	127	71	87
29	80	64	46	44	46	56	170	194	357	140	68	84
30	80	65	47	45	45	58	158	227	324	143	67	81
31	79	---	48	45	---	59	---	234	---	126	67	---
TOTAL	2944	2095	1695	1430	1491	1601	3485	14473	14532	5888	2566	2564
MEAN	95.0	69.8	54.7	46.1	51.4	51.6	116	467	484	190	82.8	85.5
MAX	137	85	69	51	72	60	238	841	704	304	112	139
MIN	78	60	41	40	41	44	63	190	282	126	67	61
AC-FT	5840	4160	3360	2840	2960	3180	6910	28710	28820	11680	5090	5090

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1996, BY WATER YEAR (WY)

MEAN	87.0	67.1	51.3	43.8	45.0	58.6	112	324	594	339	157	106
MAX	153	94.4	67.3	54.1	61.5	81.0	188	765	914	848	313	250
(WY)	1985	1971	1971	1995	1995	1974	1985	1984	1984	1983	1995	1970
MIN	57.6	48.8	35.8	33.1	32.0	40.5	67.5	122	168	88.5	73.3	52.9
(WY)	1979	1990	1977	1977	1990	1964	1973	1977	1977	1977	1977	1959

## SUMMARY STATISTICS

**FOR 1995 CALENDAR YEAR**

FOR 1996 WATER YEAR

WATER YEARS 1959 - 1996

ANNUAL TOTAL	86261		54764			
ANNUAL MEAN	236		150		166	
HIGHEST ANNUAL MEAN					270	1984
LOWEST ANNUAL MEAN					72.6	1977
HIGHEST DAILY MEAN	1420	Jun 16	841	May 17	1740	Jun 24 1983
LOWEST DAILY MEAN	41	Dec 24	40	Jan 27	26	Jan 13 1963
ANNUAL SEVEN-DAY MINIMUM	44	Dec 23	44	Jan 25	30	Feb 13 1990
INSTANTANEOUS PEAK FLOW			1030	May 16	a 2100	Jun 24 1983
INSTANTANEOUS PEAK STAGE			4.59	May 16	5.73	Jun 24 1983
ANNUAL RUNOFF (AC-FT)	171100		108600		120100	
10 PERCENT EXCEEDS	705		427		434	
50 PERCENT EXCEEDS	99		77		78	
90 PERCENT EXCEEDS	54		47		42	

e-Estimated.

a-From rating curve extended above 1800 ft<sup>3</sup>/s.

**09146200 UNCOMPAHGRE RIVER NEAR RIDGWAY, CO--Continued**  
**(National Water-Quality Assessment Program station)**

**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--October 1995 to September 1996.

REMARKS.--Upper Colorado River Basin National Water Quality Assessment Program station (NAWQA).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET	SPE-CIFIC CON- DUCT- PER SECOND	PH (STAND- ANCE UNITS)	TEMPER- ATURE ARD WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L CACO3)	CALCIUM DIS- AS SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, AD- SORP- TION RATIO		
OCT 19...	1400	84		700	8.1	12.5	8.5	290	98	11	18	0.5
NOV 28...	1038	58		808	8.0	2.5	10.9	360	120	15	26	0.6
JAN 10...	1347	50		800	7.9	4.0	10.5	380	130	14	26	0.6
FEB 07...	1120	46		812	8.0	3.5	11.9	360	120	14	28	0.6
MAR 06...	1207	49		798	8.0	3.5	11.0	360	120	14	29	0.7
APR 02...	1005	76		609	8.2	7.0	9.8	270	90	10	20	0.5
10...	1030	144		447	7.8	6.0	9.9	180	64	5.9	12	0.4
MAY 08...	1136	383		274	7.9	9.0	9.1	120	41	3.1	5.4	0.2
16...	0930	685		202	7.7	7.5	8.9	79	28	2.2	3.3	0.2
JUN 04...	1145	496		305	7.8	10.0	8.8	130	45	4.5	7.6	0.3
27...	1512	324		424	7.9	12.5	8.2	190	63	7.3	10	0.3
JUL 10...	1617	242		500	8.2	20.0	7.4	210	71	8.3	14	0.4
25...	1304	140		590	8.2	14.5	8.3	260	86	10	17	0.5
AUG 29...	1631	65		707	8.2	20.5	7.4	310	100	14	21	0.5
SEP 11...	1327	69		752	8.0	15.0	8.2	330	110	14	26	0.6

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-a (MG/L AS HCO3)	ALKA-b (MG/L AS CACO3)	LINITY WAT DIS TOT IT FIELD	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDs, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L AS SIO2)	SOLIDs, SUM OF CONSTITUENTS, DIS- SOLVED (TONS PER MG/L)	SOLIDs, SOLVED (TONS PER AC-FT)
OCT 19...	1.8	112	92	250	4.0	0.5	9.8	485	449	0.66	110
NOV 28...	2.2	134	110	300	5.2	0.5	11	564	547	0.77	88.8
JAN 10...	2.3	131	107	280	5.4	0.6	12	572	536	0.78	77.2
FEB 07...	2.3	138	113	300	6.0	0.7	12	569	552	0.77	71.3
MAR 06...	2.3	118	97	290	6.3	0.5	12	566	533	0.77	74.9
APR 02...	1.6	101	83	200	4.2	0.5	9.9	402	387	0.55	82.5
10...	1.3	62	51	140	2.5	0.4	8.3	284	266	0.39	110
MAY 08...	0.90	49	41	82	1.3	0.3	6.9	165	166	0.22	171
16...	0.80	40	33	55	0.9	0.2	5.3	134	116	0.18	248
JUN 04...	1.2	67	55	85	1.5	0.3	6.8	188	186	0.26	252
27...	1.3	95	78	120	1.7	0.4	8.4	283	260	0.38	248
JUL 10...	1.7	115	94	150	2.6	0.4	9.5	336	315	0.46	220
25...	1.8	138	113	170	3.0	0.5	10	396	367	0.54	150
AUG 29...	2.4	161	132	230	3.7	0.5	11	490	462	0.67	86.0
SEP 11...	2.5	166	136	250	4.9	0.5	12	512	502	0.70	95.4

a-Field dissolved bicarbonate, determined by incremental titration method.

b-Field total dissolved alkalinity, determined by incremental titration method.

## GUNNISON RIVER BASIN

**09146200 UNCOMPAHGRE RIVER NEAR RIDGWAY, CO--Continued**  
**(National Water-Quality Assessment Program station)**

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO-GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO-GEN, NO <sub>2</sub> +NO <sub>3</sub> DIS- SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO-GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS DIS- TOTAL (MG/L AS P)	PHOS-PHORUS DIS- TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT 19...	<0.01	0.10	<0.015	<0.2	<0.2	0.02	<0.01	<0.01	0.9	0.2
NOV 28...	<0.01	0.10	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01	0.7	0.3
JAN 10...	<0.01	0.13	0.03	<0.2	<0.2	0.02	<0.01	<0.01	0.6	0.3
FEB 07...	<0.01	0.11	0.03	<0.2	<0.2	<0.01	<0.01	<0.01	0.6	0.3
MAR 06...	<0.01	0.12	0.04	<0.2	<0.2	0.01	0.02	<0.01	0.8	0.4
APR 02...	<0.01	0.14	<0.015	<0.2	<0.2	0.04	<0.01	<0.01	0.8	1.0
10...	<0.01	0.13	0.02	<0.2	<0.2	0.07	<0.01	<0.01	1.2	1.3
MAY 08...	<0.01	0.21	0.03	<0.2	0.3	0.27	<0.01	<0.01	1.3	1.3
16...	<0.01	0.14	<0.015	0.5	<0.2	0.60	<0.01	<0.01	1.3	2.1
JUN 04...	<0.01	0.16	0.03	0.3	<0.2	0.17	0.02	<0.01	1.1	1.1
27...	<0.01	0.14	0.03	<0.2	<0.2	0.02	0.02	<0.01	1.3	0.5
JUL 10...	0.01	0.15	0.04	<0.2	<0.2	0.01	<0.01	0.01	1.3	0.4
25...	0.01	0.14	0.03	0.3	<0.2	<0.01	<0.01	<0.01	1.0	0.3
AUG 29...	<0.01	0.12	0.03	<0.2	<0.2	0.01	<0.01	<0.01	1.1	0.6
SEP 11...	<0.01	0.12	0.02	<0.2	<0.2	0.01	<0.01	<0.01	0.9	0.2
DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	
OCT 19...	50	<1	1	37	<1	<1	1	2	6	
NOV 28...	30	<1	2	39	<1	<1	<1	3	8	
JAN 10...	70	<2	2	41	<2	<2	<2	<2	9	
FEB 07...	20	<1	3	41	<1	<1	<1	1	7	
MAR 06...	20	<1	4	40	<1	<1	<1	1	6	
APR 02...	40	<1	2	38	<1	<1	<1	<1	4	
10...	60	<1	<1	36	<1	<1	<1	<1	4	
MAY 08...	70	<1	8	32	<1	<1	<1	<1	6	
16...	60	<1	<1	24	<1	<1	<1	<1	5	
JUN 04...	60	<1	1	28	<1	<1	<1	<1	5	
27...	40	<1	<1	34	<1	<1	<1	<1	4	
JUL 10...	80	<1	2	41	<1	<1	<1	<1	4	
25...	50	<1	2	41	<1	<1	1	<1	3	
AUG 29...	70	<1	2	43	<1	<1	<1	<1	4	
SEP 11...	40	<1	5	40	<1	<1	<1	<1	4	

**09146200 UNCOMPAHGRE RIVER NEAR RIDGWAY, CO--Continued**  
**(National Water-Quality Assessment Program station)**

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
OCT 19...	5	<1	140	2	4	<1	<1	19	<1
NOV 28...	<3	<1	190	3	7	<1	<1	42	1
JAN 10...	<9	<2	150	3	6	<1	<2	31	<2
FEB 07...	<3	<1	150	2	4	<1	<1	28	1
MAR 06...	<3	<1	120	2	4	<1	<1	25	<1
APR 02...	<3	<1	94	2	2	<1	<1	16	<1
10...	<3	<1	150	2	2	<1	<1	23	<1
MAY 08...	4	<1	170	1	2	<1	<1	41	<1
16...	10	<1	68	<1	<1	<1	<1	15	<1
JUN 04...	6	<1	65	1	2	<1	<1	16	<1
27...	4	<1	50	2	2	<1	<1	18	<1
JUL 10...	<3	<1	50	2	2	<1	<1	9	<1
25...	<3	<1	46	2	2	<1	<1	14	<1
AUG 29...	<3	<1	28	3	4	<1	<1	8	1
SEP 11...	<3	<1	37	2	3	<1	<1	11	1

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
FEB 28...	1045	45	869	2.0	JUN 04...	1205	496	305	10.0
APR 16...	1137	103	--	13...	0952	457	348	9.5	
25...	1158	154	432	6.0	27...	1526	311	424	12.5
30...	1221	146	456	7.5	JUL 02...	1731	276	461	16.5
MAY 08...	1149	379	274	8.5	10...	1631	242	500	20.0
16...	1150	685	202	9.0	AUG 14...	0910	75	717	11.0
23...	1158	604	231	7.5	29...	1618	65	707	20.5
30...	1206	225	417	8.5	SEP 11...	1309	69	752	15.0
				10.5	26...	1255	90	657	11.0

## GUNNISON RIVER BASIN

**09146200 UNCOMPAHGRE RIVER NEAR RIDGWAY, CO--Continued**  
**(National Water-Quality Assessment Program station)**

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, SED- IMENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SAMPLER <sup>d</sup> TYPE (CODE)
NOV 28...	1038	58	15 <sup>c</sup>	2.4	--	3045
JAN 10...	1347	50	14 <sup>c</sup>	1.9	--	3045
FEB 07...	1120	46	18 <sup>c</sup>	2.3	--	3045
MAR 06...	1207	49	21 <sup>c</sup>	2.8	--	3045
APR 02...	1005	76	30 <sup>c</sup>	6.2	--	3044
	1030	144	101 <sup>c</sup>	39	--	3045
	1137	103	67	19	--	3044
	1158	154	135	56	91	3044
	1221	146	31	12	82	3044
MAY 08...	1136	383	202 <sup>c</sup>	209	--	3039
	1149	379	197	202	74	3009
	0930	685	552 <sup>c</sup>	1020	64	3039
	1150	685	479	886	62	3009
	1158	604	193	315	55	3009
	1206	225	102	62	82	3044
JUN 04...	1145	496	194 <sup>c</sup>	260	--	3039
	1205	496	284	380	71	3009
	0952	457	88	109	44	3009
	1512	324	60 <sup>c</sup>	52	--	3044
	1526	311	67	56	66	3044
JUL 02...	1731	276	38	28	68	3044
	1617	242	39 <sup>c</sup>	25	--	3045
	1631	242	39	25	80	3044
	1304	140	15 <sup>c</sup>	5.7	--	3045
	1309	140	43 <sup>c</sup>	16	--	3045
	1333	140	16	6.0	90	3044
AUG 29...	1618	65	12	2.1	--	3044
	1631	65	13 <sup>c</sup>	2.3	--	3045
SEP 11...	1309	69	6	1.1	--	3044
	1327	69	6 <sup>c</sup>	1.1	--	3045

<sup>c</sup>-Suspended-sediment concentration determined from a subsample split of a composite sample.<sup>d</sup>-Sampler type: code 3009 is a D-74 suspended-sediment sampler; code 3039 is a D-77TM water-quality sampler; code 3044 and 3045 are water-quality and suspended-sediment samplers.

## 09147000 DALLAS CREEK NEAR RIDGWAY, CO

LOCATION.--Lat 38°10'40", long 107°45'28", on line between sec. 4 and 5, T.45 N., R.8 W., Ouray County, Hydrologic Unit 14020006, on right bank 25 ft downstream from county road bridge, 1.5 mi upstream from mouth, and 1.5 mi northwest of Ridgway.

DRAINAGE AREA.--97.2 mi<sup>2</sup>.

PERIOD OF RECORD.--March 1922 to October 1927, October 1955 to September 1971, October 1979 to current year.

REVISED RECORDS.--WSP 1924: 1960. WDR CO-88-2: Drainage area.

GAGE.--Water stage recorder with satellite telemetry and concrete control. Elevation of gage is 6,980 ft above sea level, from topographic map. Mar. 1, 1922 to Oct. 31, 1927, nonrecording gage at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 4,500 acres upstream from and 700 acres downstream from station. One small ditch imports water from Leopard Creek (Dolores River basin) to drainage upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	31	25	e22	e21	21	20	33	2.0	31	27	16
2	44	31	25	e22	e21	21	27	31	2.0	29	27	17
3	41	29	25	e22	e20	e19	33	29	2.2	26	28	13
4	40	28	24	e22	e20	17	31	29	4.0	22	27	13
5	39	29	23	e22	e21	17	28	26	8.0	23	26	14
6	37	29	23	e21	e22	17	29	20	8.3	19	22	20
7	35	29	22	e21	e22	19	37	13	18	18	18	20
8	35	28	21	e21	23	17	54	9.1	16	20	19	18
9	33	28	21	e21	23	17	60	5.2	16	35	21	16
10	30	28	22	e21	22	17	51	4.6	17	46	19	14
11	30	31	23	e21	22	17	46	4.3	15	31	17	13
12	28	29	22	e21	22	18	33	4.4	11	21	16	17
13	30	29	22	e21	23	17	34	4.5	11	15	12	24
14	33	28	22	e21	23	15	30	4.4	28	12	10	32
15	32	27	19	e22	23	15	34	4.7	61	14	9.1	41
16	32	27	e19	e22	23	16	39	6.1	46	26	6.4	32
17	34	27	e18	e22	24	16	36	11	37	17	5.0	34
18	33	27	e18	e22	24	15	35	11	36	19	3.7	37
19	32	29	e18	e22	23	15	40	13	36	16	4.4	36
20	32	28	e18	e23	31	16	35	15	33	12	6.2	35
21	32	27	e18	e24	35	16	30	18	52	14	7.6	32
22	34	27	e18	e23	30	18	30	18	56	18	6.0	31
23	33	27	e17	e23	26	18	34	9.2	43	17	6.8	32
24	33	28	e19	e22	26	16	42	8.7	37	15	7.7	32
25	34	28	e20	e22	25	18	51	8.6	33	15	12	32
26	34	29	e20	e21	23	17	51	8.7	25	15	25	32
27	33	28	e21	e20	e25	17	49	7.4	32	15	22	31
28	32	32	e21	e21	e25	18	48	6.2	63	16	24	30
29	29	28	e21	e21	24	19	38	4.9	43	32	25	29
30	29	28	e22	e21	---	18	36	3.6	34	31	19	28
31	28	---	e22	e21	---	18	---	2.0	---	26	14	---
TOTAL	1047	854	649	671	692	535	1141	373.6	825.5	666	492.9	771
MEAN	33.8	28.5	20.9	21.6	23.9	17.3	38.0	12.1	27.5	21.5	15.9	25.7
MAX	46	32	25	24	35	21	60	33	63	46	28	41
MIN	28	27	17	20	20	15	20	2.0	2.0	12	3.7	13
AC-FT	2080	1690	1290	1330	1370	1060	2260	741	1640	1320	978	1530

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1996, BY WATER YEAR (WY)

MEAN	24.4	24.2	20.0	17.8	18.9	24.9	58.6	53.2	62.0	76.0	59.1	38.6
MAX	65.1	39.1	33.9	32.0	32.0	59.4	183	249	171	230	141	117
(WY)	1985	1926	1924	1924	1924	1985	1985	1984	1984	1983	1983	1927
MIN	2.07	14.4	13.4	9.61	11.9	14.8	4.13	.67	2.45	16.7	6.25	2.58
(WY)	1957	1957	1994	1980	1994	1980	1990	1981	1989	1959	1956	1956

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1922 - 1996

ANNUAL TOTAL	25170		8718.0									
ANNUAL MEAN		69.0		23.8								
HIGHEST ANNUAL MEAN												
LOWEST ANNUAL MEAN												
HIGHEST DAILY MEAN	292	Jul 13	63	Jun 28								
LOWEST DAILY MEAN	14	Jan 2	a2.0	May 31								
ANNUAL SEVEN-DAY MINIMUM	15	Jan 26	3.0	May 29								
INSTANTANEOUS PEAK FLOW			108	Apr 9								
INSTANTANEOUS PEAK STAGE			3.92	Apr 9								
ANNUAL RUNOFF (AC-FT)	49920		17290									
10 PERCENT EXCEEDS	155		35									
50 PERCENT EXCEEDS	40		22									
90 PERCENT EXCEEDS	17		11									

e-Estimated.

a-Also occurred Jun 1-2.

b-Maximum discharge observed, datum then in use, from rating curve extended above 160 ft<sup>3</sup>/s.

c-Maximum gage height, 6.40 ft, May 10, 1984.

## GUNNISON RIVER BASIN

**09147022 RIDGWAY RESERVOIR NEAR RIDGWAY, CO**

LOCATION.--Lat 38°14'14", long 107°45'27", in NW<sup>1/4</sup>SW<sup>1/4</sup> sec.16, T.46 N., R.8 W., Ouray County, Hydrologic Unit 14020006, in concrete gate house at base of Ridgway Reservoir on Uncompaghre River, 0.5 mi upstream from Fisher Creek, and 5.3 mi north of Ridgway.

DRAINAGE AREA.--265 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1988 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is above sea level, (levels by U.S. Bureau of Reclamation); gage readings published are to datum.

REMARKS.--Reservoir is formed by an earthfill dam. Dam completed Mar. 22, 1988. Capacity 84,590 acre-ft between 6,680.0 ft, streambed at dam axis and 6,871.3 ft, maximum water surface. Dead storage below elevation 6,720.0 ft, 1,430 acre-ft. Figures given are live contents.

COOPERATION.--Capacity tables provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 84,900 acre-ft, June 11, 1990, elevation, 6,872.93 ft; minimum contents, 49,810 acre-ft, June 2, 1995, elevation, 6834.93 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 82,110 acre-ft, June 24, elevation, 6,870.31 ft; minimum contents, 57,920 acre-ft, May 2, elevation, 6,844.89 ft.

## MONTHEND ELEVATION AND CONTENTS, AT 2400 WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30 . . . . .	6,855.43	67,360	-
Oct. 31 . . . . .	6,853.69	65,750	-1,610
Nov. 30 . . . . .	6,853.60	65,660	-90
Dec. 31 . . . . .	6,852.75	64,880	-780
CAL YR 1995 . . . . .	-	-	-3,370
Jan. 31 . . . . .	6,852.59	64,730	-150
Feb. 29 . . . . .	6,853.01	65,120	+390
Mar. 31 . . . . .	6,853.27	65,360	+240
Apr. 30 . . . . .	6,844.97	57,990	-7,370
May 31 . . . . .	6,858.19	69,970	+11,980
June 30 . . . . .	6,869.37	81,120	+11,150
July 31 . . . . .	6,862.07	73,740	-7,380
Aug. 31 . . . . .	6,849.61	62,040	-11,700
Sept. 30 . . . . .	6,851.85	64,060	+2,020
WTR YR 1996 . . . . .	-	-	-3,300

**09147025 UNCOMPAHGRE RIVER BELOW RIDGWAY RESERVOIR, CO**

LOCATION.--Lat 38°14'17", long 107°45'31", in NE<sup>1/4</sup>SE<sup>1/4</sup> sec.17, T.46 N., R.8 W., Ouray County, Hydrologic Unit 14020006, on right bank 1,600 ft upstream from Fisher Creek, 800 ft downstream from Ridgway Reservoir gate house, and 5.4 mi north of Ridgway.

DRAINAGE AREA.--265 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1988 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,650 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Diversions for irrigation by means of numerous canals downstream from station. Flow regulated by Ridgway Reservoir, capacity 84,591 acre-ft. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996**  
**DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	203	125	95	69	71	73	207	282	297	507	228	126
2	203	123	95	69	71	74	283	293	297	468	222	125
3	203	123	95	69	70	74	287	298	296	407	212	103
4	203	127	95	70	70	74	298	283	296	397	208	93
5	203	126	95	69	70	74	296	286	297	390	204	92
6	201	124	95	69	71	71	289	285	300	388	219	83
7	199	105	93	69	71	70	289	289	307	389	258	78
8	198	93	93	69	71	71	285	290	308	388	309	78
9	199	93	93	69	71	71	285	290	308	387	322	78
10	197	93	92	69	71	71	284	287	313	379	322	78
11	181	93	93	69	71	71	285	297	310	375	318	78
12	173	94	93	70	71	71	282	287	310	375	319	78
13	175	94	93	70	71	71	291	289	306	375	317	78
14	174	94	93	71	71	71	286	289	304	376	316	78
15	172	94	93	71	72	72	284	289	304	375	337	78
16	158	93	93	71	72	72	285	292	306	381	350	77
17	150	92	93	71	73	71	286	297	303	379	353	76
18	151	92	93	70	73	71	286	296	300	376	352	75
19	149	92	93	70	73	74	285	297	301	343	348	75
20	148	92	93	70	74	74	286	294	302	327	335	75
21	147	93	93	70	73	74	286	293	314	326	324	75
22	147	93	93	70	73	74	286	296	381	321	330	75
23	147	94	93	72	71	75	287	296	441	314	329	75
24	144	94	92	71	71	73	282	292	473	315	327	75
25	144	93	91	72	71	74	284	293	492	326	326	75
26	145	95	78	72	71	74	284	292	505	339	271	75
27	133	94	70	72	71	76	285	293	502	332	208	76
28	127	94	71	75	71	77	286	292	494	328	190	76
29	128	94	72	73	72	72	285	293	500	305	190	76
30	128	95	71	73	---	75	284	297	496	246	151	76
31	128	---	69	71	---	75	---	296	---	225	128	---
TOTAL	5158	3001	2764	2185	2072	2260	8508	9043	10663	11159	8623	2456
MEAN	166	100	89.2	70.5	71.4	72.9	284	292	355	360	278	81.9
MAX	203	127	95	75	74	77	298	298	505	507	353	126
MIN	127	92	69	69	70	70	207	282	296	225	128	75
AC-FT	10230	5950	5480	4330	4110	4480	16880	17940	21150	22130	17100	4870

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1996, BY WATER YEAR (WY)

MEAN	98.6	82.9	77.9	60.1	60.7	97.2	252	309	397	417	328	160
MAX	166	108	105	76.2	77.4	179	381	493	589	846	535	395
(WY)	1996	1993	1993	1991	1991	1995	1991	1995	1995	1995	1992	1995
MIN	55.4	43.1	41.9	41.3	40.5	39.3	36.8	159	199	186	188	68.1

SUMMARY STATISTICS

FOR 1995 CALENDAR YEAR

FOR 1996 WATER YEAR

WATER YEARS 1989 - 1996

ANNUAL TOTAL	116876	67892	
ANNUAL MEAN	320	185	
HIGHEST ANNUAL MEAN			196
LOWEST ANNUAL MEAN			311
HIGHEST DAILY MEAN	1080	Jul 11	1995
LOWEST DAILY MEAN	46	Feb 21	a 34
ANNUAL SEVEN-DAY MINIMUM	47	Jan 5	34
INSTANTANEOUS PEAK FLOW		627 Jun 29	34 Apr 21 1990
INSTANTANEOUS PEAK STAGE		3.06 Jun 29	c 3.56 Jun 13 1990
ANNUAL RUNOFF (AC-FT)	231800	134700	141800
10 PERCENT EXCEEDS	599	331	443
50 PERCENT EXCEEDS	249	127	110
90 PERCENT EXCEEDS	49	71	49

a-Also occurred Jan 1-3, 5-11.

b-Also occurred Apr 22-24, 1990.

c-Maximum gage height, 3.63 ft, Jul 10, 1995.

## GUNNISON RIVER BASIN

**09147500 UNCOMPAHGRE RIVER AT COLONA, CO**

LOCATION.--Lat  $38^{\circ}19'53''$ , long  $107^{\circ}46'44''$ , in NW $^{1/4}$ NW $^{1/4}$  sec.17, T.47 N., R.8 W., Ouray County, Hydrologic Unit 14020006, on right bank 75 ft downstream from county highway crossing, 0.2 mi north of Colona, and 1.0 mi upstream from Beaton Creek.

DRAINAGE AREA.--448 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1903 to November 1905, April to June 1906 (gage heights and discharge measurements only), October 1912 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "near Colona" 1904-06, 1922-34. Statistical summary computed for 1986 to current year. Water-quality data available 1990-93.

REVISED RECORDS.--WSP 1313: 1904. WDR CO-88-2: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 6,318.80 ft above sea level. See WSP 1713 or 1733 for history of changes prior to Sept. 30, 1949.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Ridgway Reservoir, 7.7 mi upstream, since 1986, total capacity 84,590 acre-ft. Diversions upstream from station for irrigation of about 2,600 acres downstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	219	132	110	83	86	83	212	380	330	508	188	94
2	214	135	109	84	85	82	338	386	379	458	184	92
3	210	131	107	83	85	82	344	400	433	395	169	80
4	207	139	108	83	89	84	330	401	489	368	165	67
5	207	141	106	82	87	85	326	479	525	365	165	63
6	208	141	104	82	88	86	328	525	570	359	177	60
7	209	124	105	83	88	82	337	521	591	348	210	54
8	212	109	104	84	89	83	350	500	560	343	259	53
9	213	108	104	83	91	85	385	530	525	346	275	50
10	209	109	102	83	93	89	400	486	516	350	278	48
11	198	105	104	82	90	92	404	501	488	336	275	45
12	189	114	106	82	88	96	359	555	451	330	278	44
13	193	109	106	82	88	92	345	602	444	328	278	44
14	187	109	109	83	90	89	333	576	498	325	280	46
15	186	111	102	82	91	88	334	568	562	335	308	56
16	174	110	105	83	91	89	362	634	485	353	338	58
17	160	109	108	85	91	91	359	688	468	348	348	52
18	160	109	106	85	93	87	351	717	470	357	348	65
19	159	109	103	83	88	84	350	764	455	321	343	72
20	157	107	103	85	90	85	328	740	454	291	326	95
21	158	107	104	87	96	90	315	588	515	289	306	88
22	164	107	105	83	93	95	309	559	641	279	305	83
23	159	105	99	83	88	100	310	528	640	271	303	88
24	165	103	101	82	86	94	348	415	623	266	302	86
25	165	106	102	82	85	92	407	376	622	273	300	83
26	163	108	92	88	85	91	419	346	598	281	251	82
27	152	104	82	83	85	91	428	324	610	280	189	78
28	139	101	83	84	83	93	429	309	614	283	166	82
29	134	107	83	83	82	97	357	295	580	268	160	81
30	129	106	83	83	---	96	356	303	539	220	129	77
31	128	---	84	83	---	99	---	304	---	187	99	---
TOTAL	5527	3415	3129	2583	2564	2772	10553	15300	15675	10061	7702	2066
MEAN	178	114	101	83.3	88.4	89.4	352	494	522	325	248	68.9
MAX	219	141	110	88	96	100	429	764	641	508	348	95
MIN	128	101	82	82	82	82	212	295	330	187	99	44
AC-FT	10960	6770	6210	5120	5090	5500	20930	30350	31090	19960	15280	4100

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1996, BY WATER YEAR (WY)

MEAN	131	105	95.1	81.5	80.7	120	299	509	627	454	277	168
MAX	224	137	132	105	102	194	542	926	1066	1226	489	391
(WY)	1988	1986	1993	1986	1986	1995	1992	1987	1995	1995	1995	1987
MIN	51.6	50.2	53.0	51.4	51.0	58.2	62.6	160	229	207	135	52.3
(WY)	1990	1990	1990	1990	1990	1990	1990	1988	1989	1988	1988	1989

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1986 - 1996

ANNUAL TOTAL	147134	81347	a 246
ANNUAL MEAN	403	222	393
HIGHEST ANNUAL MEAN			1995
LOWEST ANNUAL MEAN			129
HIGHEST DAILY MEAN	1900	Jul 11	1900
LOWEST DAILY MEAN	49	Jan 2	c 25
ANNUAL SEVEN-DAY MINIMUM	51	Jan 1	Apr 28 1990
INSTANTANEOUS PEAK FLOW		47 Sep 8	Sep 24 1989
INSTANTANEOUS PEAK STAGE		916 May 20	d 2230 Jul 12 1995
ANNUAL RUNOFF (AC-FT)	291800	3.56 May 20	4.76 Jul 12 1995
10 PERCENT EXCEEDS	1060	492	575
50 PERCENT EXCEEDS	252	134	126
90 PERCENT EXCEEDS	59	83	65

a-Average discharge for 76 years (water years 1904-1905, 1913-1986), 271 ft<sup>3</sup>/s, 196,300 acre-ft/yr, prior to completion of Ridgway Reservoir.

b-Also occurred Sep 13.

c-Minimum daily discharge for period of record, 12 ft<sup>3</sup>/s, Sep 19, 1956, and May 7, 1967.

d-Maximum discharge for period of record, 4080 ft<sup>3</sup>/s, June 13-14, 1921, gage height unknown.

**09149480 DRY CREEK AT BEGONIA ROAD, NEAR DELTA, CO**  
**(National Water-Quality Assessment Program station)**

LOCATION.--Lat 38°38'45", long 108°02'54", in SW<sup>1/4</sup>NE<sup>1/4</sup> sec.36, T.51 N., R.11 W., Montrose County, Hydrologic Unit 14020006, on right bank 150 ft upstream from Begonia Road bridge over Dry Creek, 5.6 mi upstream from mouth, and 6.5 mi south of Delta.

DRAINAGE AREA.--175 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--October 1995 to September 1996.

GAGE.--Water-stage recorder. Elevation of gage is 5,220 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by water diverted from Gunnison River mid-March through early November (see record of diversion through Gunnison Tunnel published with station 09128000), diversions for irrigation into Ironstone Canal upstream from station, and return flow from irrigated areas.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	184	e110	e39	e30	e24	e24	18	88	14	16	19	21
2	190	e120	e39	e26	e24	e25	e14	87	14	15	18	21
3	182	e135	e39	e25	e22	e25	e21	81	14	13	18	30
4	176	e133	e39	e28	e21	e24	e12	85	14	14	20	38
5	168	e124	e39	e27	e23	e23	e10	74	13	14	21	40
6	165	e104	e39	e24	e25	e22	e9.0	75	12	17	19	73
7	168	e45	e40	e22	e26	e21	22	78	11	16	19	83
8	169	e50	e39	e21	e26	21	e23	86	14	15	17	69
9	168	e49	e38	e22	e25	20	e13	88	16	16	18	88
10	167	e48	e39	e23	e24	20	e25	77	15	18	17	86
11	172	e49	e38	e23	e24	20	45	63	15	18	16	89
12	176	e48	e38	e23	e23	20	62	55	16	16	16	101
13	177	e47	e37	e23	e22	21	90	51	16	18	18	156
14	182	e46	e36	e23	e22	21	90	45	16	17	19	128
15	191	e47	e36	e23	e22	21	93	38	40	16	21	126
16	189	e47	e37	e26	e21	20	72	24	58	17	20	131
17	155	e47	e36	e29	e21	20	52	24	50	16	18	149
18	141	e47	e36	e28	e21	20	52	24	37	23	21	169
19	132	e47	e36	e29	e21	20	42	27	22	37	21	209
20	131	e47	e35	e26	e21	21	40	25	17	26	20	211
21	134	e47	e34	e26	e29	46	36	20	19	25	20	171
22	147	e47	e34	e26	e37	85	33	17	19	21	19	166
23	164	e48	e28	e25	e34	60	24	13	21	16	26	172
24	128	e47	e25	e24	e32	79	25	13	22	14	43	183
25	105	e47	e25	e24	e33	71	38	14	17	15	40	173
26	e105	e47	e24	e21	e29	45	53	17	17	15	33	173
27	e108	e47	e24	e19	e26	28	70	21	19	16	37	173
28	e105	e46	e24	e20	e26	28	216	20	19	17	48	178
29	e107	e41	e24	e22	e24	24	199	25	18	17	42	171
30	e106	e39	e29	e22	---	e12	145	27	17	17	33	166
31	e107	---	e32	e23	---	22	---	16	---	18	26	---
TOTAL	4699	1846	1058	753	728	929	1644.0	1398	612	549	743	3744
MEAN	152	61.5	34.1	24.3	25.1	30.0	54.8	45.1	20.4	17.7	24.0	125
MAX	191	135	40	30	37	85	216	88	58	37	48	211
MIN	105	39	24	19	21	12	9.0	13	11	13	16	21
AC-FT	9320	3660	2100	1490	1440	1840	3260	2770	1210	1090	1470	7430

SUMMARY STATISTICS

FOR 1996 WATER YEAR

ANNUAL TOTAL	18703.0
ANNUAL MEAN	51.1
HIGHEST DAILY MEAN	216 Apr 28
LOWEST DAILY MEAN	e9.0 Apr 6
ANNUAL SEVEN-DAY MINIMUM	13 Jun 1
INSTANTANEOUS PEAK FLOW	277 Apr 28
INSTANTANEOUS PEAK STAGE	3.80 Apr 28
ANNUAL RUNOFF (AC-FT)	37100
10 PERCENT EXCEEDS	146
50 PERCENT EXCEEDS	26
90 PERCENT EXCEEDS	16

e-Estimated.

## GUNNISON RIVER BASIN

**09149480 DRY CREEK AT BEGONIA ROAD, NEAR DELTA, CO--Continued  
(National Water-Quality Assessment Program station)**
**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--October 1995 to September 1996.

REMARKS.--Upper Colorado River Basin National Water Quality Assessment Program station (NAWQA).

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC DUCT- ANCE (US/CM)	PH ARD UNITS	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L) CACO3	CALCIUM DIS- SOLVED (MG/L) AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L) AS MG)	SODIUM, DIS- SOLVED (MG/L) AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L) AS K)	
OCT 26...	1055	107	1090	8.2	8.5	10.6	490	140	34	42	0.8	2.5	
NOV 29...	1051	41	1570	8.3	5.5	12.7	760	210	57	69	1	2.6	
JAN 16...	1342	26	1600	8.2	5.0	11.3	780	210	62	72	1	3.5	
FEB 06...	1325	24	1550	8.4	7.5	11.1	750	200	62	71	1	3.2	
MAR 07...	1257	21	1530	8.4	6.5	11.6	700	180	61	73	1	3.1	
	23...	1043	52	835	8.1	8.0	9.2	330	88	26	42	1	3.1
APR 01...	1230	25	751	8.5	10.5	10.0	320	88	24	36	0.9	2.8	
MAY 09...	1103	100	655	8.1	11.5	8.8	290	85	19	23	0.6	2.2	
JUN 05...	1300	13	1230	8.6	19.0	12.6	610	180	38	52	0.9	2.6	
	28...	0800	21	1240	8.2	13.5	8.3	600	180	36	50	0.9	2.6
JUL 11...	0917	20	1270	8.3	15.5	9.4	580	170	37	51	0.9	2.7	
	26...	1124	15	1280	8.3	18.0	10.4	640	190	39	53	0.9	2.5
AUG 29...	1031	48	1240	8.1	16.0	8.6	570	170	36	47	0.9	2.7	
SEP 06...	1148	57	1250	8.2	16.5	8.6	610	180	38	46	0.8	3.6	
<hr/>													
DATE	BICAR- <sup>a</sup> HCO3	CAR- <sup>b</sup> CO3	ALKA- <sup>c</sup> CACO3	LINITY AS SO4	CHLO- AS CL	FLUO- AS F	SILICA, AS SIO2	SOLIDS, AT 180 DIS- SOLVED (MG/L)	SOLIDS, CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE (MG/L AS N)	
OCT 26...	240	--	197	370	6.1	0.6	16	792	739	1.08	229	<0.01	
NOV 29...	324	3	270	590	7.9	1.0	20	1140	1140	1.55	127	<0.01	
JAN 16...	317	--	260	600	9.1	1.1	22	1180	1160	1.60	82.8	0.04	
FEB 06...	265	13	239	580	9.7	1.1	20	1150	1110	1.56	75.8	0.04	
	259	13	234	570	9.8	0.9	17	1120	1080	1.52	62.3	0.04	
MAR 07...	170	--	139	270	6.4	0.4	12	574	537	0.78	80.0	0.02	
APR 01...	144	7	130	240	4.7	0.4	13	511	492	0.69	34.5	0.02	
MAY 09...	120	--	98	210	3.9	0.4	12	442	422	0.60	119	0.02	
JUN 05...	227	11	204	440	9.1	0.9	17	914	885	1.24	32.3	0.03	
	256	--	210	450	7.8	0.9	20	966	900	0.12	4.90	0.04	
JUL 11...	243	--	199	450	8.6	1.0	19	974	887	1.32	52.3	0.06	
	26...	11	231	460	7.9	0.9	21	974	939	1.32	39.4	0.03	
AUG 29...	268	--	220	450	5.9	0.9	20	916	882	1.25	120	0.02	
SEP 06...	267	--	219	460	6.7	0.9	21	936	904	1.27	143	0.03	

a-Field dissolved bicarbonate, determined by incremental titration method.

b-Field dissolved carbonate, determined by incremental titration method.

c-Field total dissolved alkalinity, determined by incremental titration method.

**09149480 DRY CREEK AT BEGONIA ROAD NEAR DELTA, CO--Continued**  
**(National Water-Quality Assessment Program station)**

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO- GEN, NO <sub>2</sub> +NO <sub>3</sub>	NITRO- GEN, AMMONIA	NITRO- GEN, AM- MONIA + DIS- ORGANIC	NITRO- GEN, AM- MONIA + DIS- ORGANIC	PHOS- PHORUS	PHOS- PHORUS	CARBON, ORGANIC	CARBON, ORGANIC	IRON, DIS- SOLVED	MANGA- NESE,
	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS P)	(MG/L AS P)	(MG/L AS C)	(MG/L AS C)	(UG/L AS FE)	DIS- SOLVED
OCT 26...	2.3	0.02	<0.2	<0.2	0.03	<0.01	<0.01	2.8	0.6	<3
NOV 29...	5.4	<0.02	0.4	0.3	<0.01	0.01	<0.01	2.6	0.3	18
JAN 16...	5.5	0.19	0.8	0.8	0.02	<0.01	0.01	2.6	0.4	4
FEB 06...	4.8	0.09	0.7	0.6	<0.01	<0.01	0.02	3.0	0.6	6
MAR 07...	4.7	0.08	0.6	0.5	0.03	0.04	0.02	3.2	0.8	8
23...	1.2	0.12	1.4	0.5	0.32	0.04	0.03	3.0	>5.0	120
APR 01...	1.1	0.05	0.7	0.4	0.12	0.01	0.01	3.0	2.5	97
MAY 09...	1.6	0.06	1.0	0.4	0.29	0.07	0.05	5.0	4.9	53
JUN 05...	5.0	0.03	0.7	0.4	0.10	0.07	0.05	3.9	0.9	30
28...	6.1	0.08	0.7	0.4	0.09	0.04	0.04	3.8	0.9	49
JUL 11...	6.4	0.06	0.5	0.5	0.07	0.04	0.04	3.7	0.6	52
26...	5.7	0.02	0.7	0.5	0.05	0.03	0.05	3.6	0.9	39
AUG 29...	3.9	0.05	0.8	0.4	0.18	0.02	0.03	3.4	2.3	8
SEP 06...	3.6	0.02	0.9	0.5	0.18	0.06	0.04	4.1	2.2	67
										68

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, SEDI-d MENT, CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, SEDI-d MENT, CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	
OCT 26...	1055	107	49	14				MAY 09...	1103	100	402
NOV 29...	1051	41	11	1.2				JUN 05...	1300	13	108
JAN 16...	1342	26	99	6.9				28...	0800	21	31
FEB 06...	1325	24	69	4.5				JUL 11...	0917	20	1.1
MAR 07...	1257	21	37	2.1				26...	1124	15	73
23...	1043	52	328	46				AUG 29...	1031	48	3.3
23...	1057	52	324	45				SEP 06...	1036	48	64
APR 01...	1058	52	321	45					1148	57	2.6
	1230	25	114	7.7							175
											23
											180
											24
											173
											26

d-Suspended-sediment concentration determined from a subsample split of a composite sample.

## GUNNISON RIVER BASIN

**09149500 UNCOMPAHGRE RIVER AT DELTA, CO**

**LOCATION.**--Lat 38°44'31", long 108°04'49", in SW<sup>1/4</sup>SW<sup>1/4</sup> sec.13, T.15 S., R.96 W., Delta County, Hydrologic Unit 14020006, on right bank 525 ft downstream from 5th Street Bridge at west edge of Delta and 1.1 mi upstream from mouth.

**DRAINAGE AREA.**--1,115 mi<sup>2</sup>.

**PERIOD OF RECORD.**--April 1903 to October 1931 (no winter records in most years), September 1938 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "near Delta" 1907-24. Statistical summary computed for 1939 to current year.

**REVISED RECORDS.**--WSP 1243: 1904. WDR CO-88-2: Drainage area.

**GAGE.**--Water-stage recorder. Datum of gage is 4,926.49 ft above sea level. Feb. 18, 1960 to Mar. 26, 1963, water-stage recorder at site 750 ft upstream at datum 3.43 ft higher. Mar. 27, 1963 to May 12, 1965, water-stage recorder at site 1,050 ft upstream at datum 6.08 ft higher. See WSP 1733 or 1924 for history of changes prior to Feb. 18, 1960.

**REMARKS.**--Records good except for estimated daily discharges, which are fair. Natural flow of stream affected by water diverted from Gunnison River (see record of diversion through Gunnison tunnel published with station 09128000) and other adjacent basins, diversions for irrigation of about 90,000 acres upstream from station, and return flow from irrigated areas. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	496	489	306	216	204	173	201	323	205	476	177	243
2	465	507	307	211	203	171	325	320	207	411	177	237
3	468	493	301	211	191	172	457	339	256	304	187	235
4	468	495	299	211	188	171	409	350	300	235	194	248
5	461	494	298	216	204	172	309	393	315	218	177	241
6	453	545	292	212	205	183	218	454	338	223	156	391
7	443	453	292	214	202	174	219	421	367	213	153	501
8	429	360	290	210	201	175	213	374	379	208	145	441
9	423	347	283	212	201	176	202	383	387	210	162	424
10	417	346	278	211	203	176	269	344	389	212	170	451
11	423	338	276	205	201	178	256	317	348	190	175	448
12	394	336	277	203	197	182	275	345	311	167	171	530
13	387	331	269	204	196	183	314	398	298	169	164	e600
14	389	326	270	202	194	178	355	369	316	178	153	e620
15	392	325	264	201	195	173	332	335	e570	194	146	e620
16	389	323	263	202	186	172	347	306	e600	210	145	e600
17	386	320	266	220	183	174	333	336	510	210	158	610
18	377	317	260	204	186	170	293	344	418	248	172	719
19	364	318	254	203	185	165	283	350	363	316	187	904
20	360	313	251	202	188	262	259	384	321	248	197	777
21	368	316	250	195	217	187	254	349	374	223	205	706
22	382	321	245	201	222	177	227	280	471	197	232	680
23	411	320	239	201	206	170	188	246	562	167	230	693
24	499	313	235	195	193	184	196	204	494	153	238	670
25	515	310	236	194	192	185	230	213	438	156	276	639
26	495	314	237	187	188	302	288	269	422	164	277	626
27	490	309	219	180	178	275	294	251	482	174	227	575
28	476	302	218	199	171	215	507	239	576	186	232	491
29	476	305	216	194	175	187	523	243	575	226	241	472
30	472	304	214	193	---	226	433	229	531	219	222	446
31	467	---	220	197	---	198	---	219	---	182	223	---
TOTAL	13435	10890	8125	6306	5655	5886	9009	9927	12123	6887	5969	15838
MEAN	433	363	262	203	195	190	300	320	404	222	193	528
MAX	515	545	307	220	222	302	523	454	600	476	277	904
MIN	360	302	214	180	171	165	188	204	205	153	145	235
AC-FT	26650	21600	16120	12510	11220	11670	17870	19690	24050	13660	11840	31410

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1996, BY WATER YEAR (WY)**

MEAN	394	248	162	135	130	158	306	512	573	324	283	375
MAX	831	373	269	220	208	362	1107	2542	1763	1170	808	944
(WY)	1942	1959	1994	1982	1948	1995	1985	1984	1984	1983	1943	1961
MIN	131	125	111	70.9	66.5	80.7	78.6	125	136	112	93.7	123
(WY)	1978	1950	1943	1943	1943	1951	1967	1954	1954	1955	1956	1956

**SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1939 - 1996**

ANNUAL TOTAL	164368		110050									
ANNUAL MEAN	450		301							300		
HIGHEST ANNUAL MEAN										688		1984
LOWEST ANNUAL MEAN										155		1951
HIGHEST DAILY MEAN	1810	Jun 18		904	Sep 19					4520	May 15	1984
LOWEST DAILY MEAN	142	Jan 23	a145	Aug 8						20	Dec 26	1962
ANNUAL SEVEN-DAY MINIMUM	161	Jan 18	158	Aug 12						42	Mar 14	1959
INSTANTANEOUS PEAK FLOW			963	Sep 19						c5800	May 15	1984
INSTANTANEOUS PEAK STAGE	326000		5.19	Sep 19						8.85	May 15	1984
ANNUAL RUNOFF (AC-FT)			218300							217700		
10 PERCENT EXCEEDS	873			492						598		
50 PERCENT EXCEEDS	333			256						200		
90 PERCENT EXCEEDS	174			176						107		

e-Estimated.

a-Also occurred Aug 16.

b-Minimum daily discharge for period of record, no flow at times in 1908. Minimum daily determined since beginning of diversion through Gunnison tunnel, 7.0 ft<sup>3</sup>/s, Jul 10-15, 17, 21, 24-28, 1910.

c-From rating curve extended above 3400 ft<sup>3</sup>/s.

**09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO**

**LOCATION**--Lat 38°59'00", long 108°27'00", in NE<sup>1/4</sup>SW<sup>1/4</sup> of sec.14, T.2 S., R.1 E., Ute Meridian, Mesa County, Hydrologic Unit 14020005, on right bank 180 ft upstream from bridge on State Highway 141, 0.4 mi downstream from Whitewater Creek, 0.5 mi south of Whitewater, and 8 mi southeast of Grand Junction.

**DRAINAGE AREA**--7,928 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

**PERIOD OF RECORD**--October 1894 to December 1895 (gage heights only), October 1896 to September 1899, October 1901 to October 1906, October 1916 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "at Whitewater" 1901-6.

**REVISED RECORDS**--WSP 509: Drainage area at former site. WSP 2124: Drainage area.

**GAGE**--Water-stage recorder with satellite telemetry. Datum of gage is 4,628.12 ft above sea level. See WSP 1733 or 1924 for history of changes prior to October 1959.

**REMARKS**--No estimated daily discharges. Records good. Records show flow that enters Colorado River from Gunnison River basin except for about 60 ft<sup>3</sup>/s diverted downstream from gage during irrigation season. Natural flow of river affected by diversions for irrigation of about 233,000 acres upstream from station, storage reservoirs, and return flow from irrigated lands.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3240	2910	2840	2580	1910	1770	2610	4910	2350	4610	1380	1540
2	3050	2980	2870	2700	1780	1770	2940	5020	2350	4010	1380	1600
3	2950	2940	2840	2780	1690	1760	3130	4860	2560	3640	1370	1570
4	2920	2920	2840	2790	1640	1760	3110	4980	2740	3430	1370	1600
5	2900	2950	2850	2820	1710	1760	2930	5300	2840	3270	1370	1550
6	2900	3060	2800	2780	1750	1810	2840	5750	2910	3110	1280	1730
7	2880	3370	2770	2790	1770	1680	2970	6050	2980	2980	1240	2150
8	2850	3090	2810	2750	1740	1400	3200	6330	2910	2970	1240	2040
9	2820	3060	2780	2680	1800	1370	3520	6500	2890	2810	1290	1940
10	2780	3050	2760	2530	1790	1680	4090	6660	2870	2640	1380	1960
11	2770	3010	2750	2310	1780	1790	4200	6280	2760	2440	1410	1980
12	2740	2990	2750	2080	1740	1830	4360	6470	2870	2340	1410	2070
13	2730	3000	2770	1850	1720	1880	3990	7010	3040	2330	1350	2180
14	2760	2980	2730	1670	1710	1930	3830	7240	3110	2300	1280	2240
15	2770	2970	2710	1670	1720	2200	3290	7150	3570	2380	1220	2220
16	2750	2960	2680	1630	1740	2410	2740	7080	4160	2310	1210	2170
17	2770	2950	2690	1680	1750	2450	2770	7460	4070	2110	1280	2150
18	2760	2960	2680	1770	1770	2450	2860	7670	4820	1950	1340	2270
19	2740	2950	2560	1690	1770	2430	3010	7190	6030	1980	1460	2570
20	2730	2950	2600	1660	1740	2380	2830	7140	5890	1720	1440	2420
21	2750	2960	2610	1650	2140	2390	2740	6650	5660	1590	1460	2230
22	2760	2960	2610	1650	2480	2440	2630	5940	5910	1510	1510	2160
23	2860	2960	2570	1660	2280	2600	2500	5500	5940	1390	1490	2150
24	2920	2950	2530	1650	2010	2630	2850	4920	5590	1320	1480	2110
25	2930	2940	2540	1670	1920	2610	3590	4290	5270	1260	1500	2020
26	2890	2950	2550	1630	1870	2620	4500	3930	5140	1310	1580	2010
27	2880	2940	2540	1580	1740	2620	4760	3600	5090	1320	1500	2030
28	2850	2860	2530	1640	1710	2520	5080	3050	5070	1310	1460	2050
29	2840	2860	2560	1670	1780	2510	4780	2760	4940	1420	1480	2000
30	2840	2790	2570	1680	---	2550	4650	2480	4700	1530	1470	1960
31	2850	---	2610	1710	---	2510	---	2390	---	1470	1500	---
TOTAL	88180	89220	83300	63400	52950	66510	103300	172560	121030	70760	43130	60670
MEAN	2845	2974	2687	2045	1826	2145	3443	5566	4034	2283	1391	2022
MAX	3240	3370	2870	2820	2480	2630	5080	7670	6030	4610	1580	2570
MIN	2730	2790	2530	1580	1640	1370	2500	2390	2350	1260	1210	1540
AC-FT	174900	177000	165200	125800	105000	131900	204900	342300	240100	140400	85550	120300

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1897 - 1996, BY WATER YEAR (WY)**

MEAN	1425	1423	1325	1245	1249	1424	3102	7555	7196	2568	1360	1331
MAX	3479	3303	3225	3515	3844	3887	9184	18870	19630	11950	3639	4959
(WY)	1987	1987	1987	1974	1974	1971	1942	1920	1957	1995	1957	1929
MIN	268	497	500	500	500	500	580	698	577	165	153	267
(WY)	1935	1899	1899	1899	1899	1903	1977	1977	1934	1934	1934	1934

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1897 - 1996
ANNUAL TOTAL	1744600	1015010	
ANNUAL MEAN	4780	2773	2603
HIGHEST ANNUAL MEAN			5187
LOWEST ANNUAL MEAN			838
HIGHEST DAILY MEAN	17300	Jun 18	1984
LOWEST DAILY MEAN	1040	Jan 19	1934
ANNUAL SEVEN-DAY MINIMUM	1100	Jan 18	
INSTANTANEOUS PEAK FLOW		7670 May 18	
INSTANTANEOUS PEAK STAGE		8000 May 17	a <sub>35700</sub> May 23 1920
ANNUAL RUNOFF (AC-FT)	3460000	2013000	1886000 May 23 1920
10 PERCENT EXCEEDS	12700	4830	6250
50 PERCENT EXCEEDS	2890	2620	1330
90 PERCENT EXCEEDS	1200	1500	699

a-Site and datum then in use, from rating curve extended above 22000 ft<sup>3</sup>/s.

## GUNNISON RIVER BASIN

**09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued**  
**(National Water-Quality Assessment Program station)**

**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--October 1931 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1935 to September 1974, September 1975 to current year.

WATER TEMPERATURE: April 1949 to September 1974, September 1975 to current year.

INSTRUMENTATION.--Water-quality monitor since September 1975, November 1991 water-quality monitor with satellite telemetry.

REMARKS.--Historic daily maximum and minimum specific conductance data available in district office. Daily water temperature data are good. Daily specific conductance data are good.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 3,000 microsiemens several days during July and September 1974; minimum, 194 microsiemens June 6, 1979.

WATER TEMPERATURE: Maximum, 30.0°C Aug. 13, 1958; minimum, 0.0°C on many days during winter months most years.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 1,270 microsiemens Sept. 8; minimum, 333 microsiemens May 20, may have been lower during period of missing record Apr. 29 to May 19.

WATER TEMPERATURE: Maximum, 23.7°C, July 31; minimum, 0.0°C on Jan. 27-28 and Feb. 4.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC DUCT- ANCE PER SECOND			HARD- NESS	TOTAL (MG/L)	MAGNE- SIUM, CALCIUM DIS- SOLVED (MG/L) CACO3)	SODIUM, DIS- SOLVED (MG/L) AS CA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L) AS K)		
				PH (US/CM)	(STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	DIS- SOLVED (MG/L)					
OCT 30...	1120	2800		794	8.4	10.5	9.6	320	83	27	42	1	2.7
DEC 12...	1200	2750		651	8.2	6.5	10.2	250	63	23	34	0.9	2.4
JAN 23...	1015	1670		806	8.1	1.0	11.3	320	79	29	44	1	2.9
FEB 21...	1115	2020		755	8.3	5.5	10.3	260	61	25	50	1	2.9
MAR 26...	1200	2710		553	8.1	5.5	10.5	210	54	18	28	0.8	2.0
APR 18...	1245	2900		601	8.0	9.0	9.6	230	60	19	31	0.9	2.6
MAY 20...	1030	6990		336	8.1	12.5	8.9	130	37	10	14	0.5	1.7
	29...	1045	2740	686	8.3	13.0	8.5	280	75	22	34	0.9	2.5
JUN 11...	1430	2700		627	8.2	17.5	8.0	240	65	19	30	0.8	2.1
JUL 03...	1315	3620		530	8.4	18.5	8.2	200	55	16	23	0.7	2.0
	16...	1130	2310	675	8.6	19.0	8.0	270	72	21	32	0.9	2.6
AUG 07...	1230	1230		992	8.5	20.0	9.4	410	110	33	51	1	3.5
	21...	1150	1410	1040	8.3	20.5	11.0	410	110	34	56	1	3.5
SEP 05...	1140	1500		1030	8.4	18.0	7.5	440	120	33	53	1	3.5

**09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO.--Continued  
(National Water-Quality Assessment Program station)**

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

a-Field dissolved bicarbonate, determined by incremetal titration method.

b-Field dissolved carbonate, determined by incremental titration method.

c-Field total dissolved alkalinity, determined by incremental titration method.

## GUNNISON RIVER BASIN

**09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO.--Continued**  
**(National Water-Quality Assessment Program station)**

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, SED- IMENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SIEVE DIAM. % FINER THAN .062 MM	SAMPLER <sup>f</sup> TYPE (CODE)
OCT 30...	1120	2800		35 <sup>d</sup>	265	--
DEC 12...	1200	2750		41 <sup>d</sup>	304	--
JAN 23...	1015	1670		6 <sup>d</sup>	27	--
FEB 21...	1115	2020		862 <sup>d</sup>	4700	--
MAR 26...	1200	2710		77 <sup>d</sup>	563	--
APR 18...	1200	2920		207	1630	--
18...	1245	2900		198 <sup>d</sup>	1550	--
MAY 20...	1030	6990		297 <sup>d</sup>	5610	--
20...	1200	7100		296	5670	71
29...	1045	2740		143 <sup>d</sup>	1060	--
29...	1110	2750		174	1290	95
JUN 11...	1340	2660		126	903	96
11...	1430	2700		95 <sup>d</sup>	693	--
JUL 03...	1315	3620		103 <sup>d</sup>	1010	--
03...	1340	3620		96	938	86
16...	1130	2310		220 <sup>d</sup>	1370	--
16...	1200	2310		78	486	--
AUG 07...	1230	1230		23 <sup>d</sup>	76	--
07...	1315	1230		30	100	--
21...	1150	1410		36 <sup>d</sup>	137	--
21...	1215	1410		41	156	--
SEP 05...	1140	1500		59 <sup>d</sup>	239	--
05...	1141	1500		55 <sup>d</sup>	223	--
05...	1225	1500		59	239	--
						3009

<sup>d</sup>-Suspended-sediment concentration determined from a subsample split of a composite sample.<sup>f</sup>-Sampler type: code 3039 is a D-77TM water-quality sampler; code 3009 is a D-74 suspended-sediment sampler.

**09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued**  
**(National Water-Quality Assessment Program station)**

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	1070	937	981	796	772	782	695	667	686	593	579	586
2	937	908	921	834	795	819	673	663	667	590	563	576
3	909	899	903	824	778	795	674	667	670	579	522	552
4	922	905	914	780	767	773	671	652	658	577	559	566
5	913	896	904	773	762	768	660	654	657	569	560	564
6	897	882	889	767	758	763	659	653	656	563	548	557
7	888	873	880	760	682	704	662	654	659	567	512	546
8	889	878	882	686	670	677	692	661	672	562	525	548
9	880	867	873	702	686	694	693	670	682	579	515	547
10	870	858	865	707	696	701	670	656	660	615	549	575
11	867	852	860	709	700	706	656	650	654	627	594	607
12	862	848	854	700	687	692	659	651	655	664	621	633
13	862	846	853	712	690	700	660	640	649	699	656	673
14	864	829	845	712	704	707	641	632	636	763	699	745
15	835	826	830	707	697	701	634	624	629	782	745	766
16	832	826	829	701	690	695	624	615	619	773	749	763
17	839	820	830	694	688	690	632	621	625	809	755	792
18	842	808	820	704	692	697	636	623	630	845	784	811
19	814	799	808	696	688	692	631	598	614	844	787	813
20	809	790	800	697	692	695	630	614	620	794	773	785
21	809	796	801	695	678	690	630	602	611	786	756	770
22	821	807	812	698	678	691	623	598	611	773	735	756
23	826	809	818	696	685	689	612	582	596	786	747	763
24	817	796	804	687	678	681	595	558	580	774	744	758
25	805	791	796	679	672	675	596	563	580	757	736	746
26	808	798	803	682	674	678	598	563	582	765	748	754
27	809	803	806	691	681	685	601	566	583	750	648	707
28	806	791	798	688	670	680	598	554	577	753	601	685
29	797	793	795	690	677	682	596	559	579	795	722	755
30	796	788	793	695	677	685	592	569	579	761	731	745
31	799	777	787	---	---	---	584	573	579	748	736	741
MONTH	1070	777	844	834	670	710	695	554	628	845	512	683
	FEBRUARY			MARCH			APRIL			MAY		
1	805	738	762	727	708	717	554	546	550	---	---	---
2	873	805	841	721	696	711	546	520	530	---	---	---
3	831	781	805	717	702	709	532	516	525	---	---	---
4	782	740	762	717	700	709	520	508	514	---	---	---
5	756	696	730	720	706	714	518	509	513	---	---	---
6	776	739	755	730	709	718	525	508	516	---	---	---
7	791	751	767	770	725	735	526	518	522	---	---	---
8	848	791	829	849	770	819	518	491	508	---	---	---
9	832	786	810	881	846	866	494	437	470	---	---	---
10	815	784	802	883	757	835	451	408	433	---	---	---
11	823	785	805	757	708	720	444	412	422	---	---	---
12	804	780	794	741	707	714	456	419	435	---	---	---
13	781	765	775	712	698	706	485	456	469	---	---	---
14	776	758	766	710	688	698	501	481	487	---	---	---
15	791	756	767	688	612	662	537	501	511	---	---	---
16	788	759	767	612	572	583	615	537	590	---	---	---
17	773	755	762	573	565	570	627	607	616	---	---	---
18	767	750	756	571	558	564	615	557	589	---	---	---
19	773	754	767	560	548	553	572	548	559	---	---	---
20	770	748	763	609	548	560	577	566	569	343	333	337
21	798	747	762	673	554	592	597	576	586	366	334	348
22	995	798	944	619	551	574	613	597	604	385	361	371
23	941	811	868	637	557	586	619	610	614	403	368	378
24	811	759	777	721	533	582	612	545	590	430	393	406
25	764	741	756	611	556	578	545	480	518	509	430	461
26	771	745	758	585	532	555	480	416	443	578	509	537
27	751	739	746	559	537	548	423	411	415	613	572	590
28	769	746	754	585	535	556	418	405	414	667	613	637
29	769	700	727	562	547	556	---	---	---	728	667	697
30	---	---	---	572	557	567	---	---	---	755	728	744
31	---	---	---	564	551	556	---	---	---	762	749	756
MONTH	995	696	782	883	532	649	---	---	---	---	---	---

## GUNNISON RIVER BASIN

**09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued**  
**(National Water-Quality Assessment Program station)**

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	769	742	754	541	517	527	1030	1010	1020	1010	1010	1010
2	758	707	730	554	505	527	1010	992	1000	1030	1010	1020
3	724	699	711	566	534	552	992	966	982	1020	990	1010
4	708	649	671	566	527	546	1000	974	987	1010	990	1000
5	668	633	649	574	549	563	1020	993	1000	1030	991	1010
6	673	625	640	616	569	582	1020	979	1010	1110	1030	1050
7	642	599	612	622	587	605	996	950	975	1140	1090	1110
8	651	588	609	613	596	603	992	947	970	1270	1100	1190
9	651	604	624	632	606	614	994	952	976	1130	1080	1100
10	677	634	648	653	627	636	995	961	984	1070	1050	1060
11	676	624	645	683	653	669	1000	977	990	1060	1030	1040
12	664	623	635	686	648	665	995	968	986	1040	1020	1030
13	628	599	609	674	655	665	998	953	977	1030	998	1020
14	619	591	605	673	655	665	990	939	968	1040	1000	1010
15	644	596	614	672	656	663	987	937	970	1070	1040	1060
16	681	623	654	700	655	671	989	943	972	1060	1040	1050
17	650	597	625	748	680	720	978	943	967	1050	1010	1030
18	597	484	544	824	748	783	996	971	989	1010	983	995
19	484	407	423	869	824	855	1010	977	997	1030	996	1010
20	421	395	406	904	865	879	1020	1010	1010	1060	1020	1050
21	476	401	429	930	904	915	1050	1010	1030	1050	1030	1040
22	473	441	455	958	930	942	1040	1010	1030	1040	1020	1030
23	461	431	441	1000	958	988	1050	1030	1040	1030	997	1010
24	457	430	442	1000	978	989	1050	1030	1040	1010	988	993
25	455	426	438	986	970	976	1050	1010	1030	1020	1010	1020
26	451	426	438	1000	972	987	1040	1010	1030	1020	997	1010
27	503	446	463	997	973	986	1020	985	1010	1000	986	993
28	547	500	518	981	969	974	1030	986	1010	987	954	970
29	547	534	540	986	971	977	1040	1010	1030	962	949	954
30	543	522	530	1030	983	997	1040	1030	1040	972	962	968
31	---	---	---	1050	1020	1030	1040	1010	1030	---	---	---
MONTH	769	395	570	1050	505	766	1050	937	1000	1270	949	1030

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	14.3	12.9	13.4	11.8	10.6	11.1	7.0	5.7	6.2	3.3	2.6	3.0
2	14.4	12.7	13.4	10.6	7.9	9.3	6.9	5.7	6.2	2.8	1.8	2.1
3	14.2	12.6	13.3	8.0	6.7	7.4	6.8	5.5	6.0	2.4	1.5	1.9
4	13.3	12.0	12.8	7.7	6.3	6.8	6.8	5.7	6.2	3.1	2.0	2.5
5	12.0	11.0	11.4	7.6	6.1	6.8	8.3	6.2	7.2	3.6	2.6	3.0
6	11.8	10.1	10.9	8.1	6.7	7.3	8.6	7.4	7.9	2.8	2.0	2.4
7	12.2	10.1	11.1	9.2	7.3	8.4	7.4	6.1	6.9	3.0	1.8	2.3
8	12.9	10.9	11.7	9.6	8.4	8.9	6.3	5.4	5.9	2.7	1.7	2.1
9	12.8	11.1	11.8	9.2	8.1	8.6	6.9	5.8	6.3	3.0	1.7	2.2
10	13.2	11.0	11.9	8.5	7.6	8.2	6.4	5.5	5.8	3.8	2.2	2.9
11	13.6	11.7	12.5	---	---	---	6.0	5.2	5.5	3.7	2.4	2.9
12	13.9	12.1	12.8	7.2	6.0	6.5	6.8	5.5	6.2	3.0	1.4	2.1
13	12.9	11.2	11.9	8.1	6.5	7.2	7.3	6.4	6.8	3.1	1.2	2.1
14	12.2	10.6	11.3	9.3	7.5	8.3	7.1	6.4	6.8	2.9	1.2	2.1
15	12.0	10.1	10.9	9.1	8.0	8.4	6.4	5.4	5.8	2.7	1.5	2.2
16	12.1	10.4	11.2	8.8	7.7	8.1	5.6	4.7	5.2	3.5	1.8	2.6
17	12.6	10.6	11.5	---	---	---	5.2	4.1	4.5	3.5	2.6	3.3
18	12.5	10.8	11.5	---	---	---	4.8	3.7	4.2	2.6	.9	1.6
19	12.0	10.7	11.2	7.8	6.9	7.2	4.2	3.1	3.5	1.5	.5	1.0
20	11.0	9.4	10.1	---	---	---	4.0	2.8	3.3	1.7	.3	1.0
21	10.6	8.9	9.7	7.6	6.6	7.0	4.0	2.8	3.2	2.2	.5	1.3
22	10.3	8.8	9.6	8.0	6.8	7.3	3.8	2.5	3.0	2.3	.9	1.5
23	8.8	7.5	8.1	8.4	7.3	7.6	3.1	1.9	2.4	2.0	.9	1.5
24	8.8	7.2	7.9	7.6	6.6	7.1	2.4	1.3	1.7	2.0	.2	1.0
25	9.2	7.4	8.2	7.4	6.3	6.7	2.3	1.1	1.5	2.0	1.1	1.6
26	9.9	8.0	8.8	7.1	6.3	6.6	2.6	1.2	1.7	1.7	.4	1.0
27	10.9	8.9	9.7	6.4	5.5	6.1	2.5	1.3	1.7	.6	.0	.2
28	10.4	9.2	9.7	5.5	4.5	4.8	2.3	1.2	1.6	1.2	.0	.4
29	9.9	8.7	9.2	6.0	4.4	5.1	2.8	1.4	1.9	2.6	.5	1.4
30	10.8	9.0	9.9	6.9	5.7	6.1	2.9	2.1	2.5	2.9	2.1	2.4
31	11.6	10.0	10.8	---	---	---	3.5	2.5	3.0	3.5	2.6	3.0
MONTH	14.4	7.2	10.9	---	---	---	8.6	1.1	4.5	3.8	.0	2.0

**09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued**  
**(National Water-Quality Assessment Program station)**

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY				MARCH				APRIL			
1	4.0	2.9	3.4	5.0	2.1	3.5	10.8	8.1	9.3	11.2	9.8	10.4
2	3.3	1.9	2.6	5.3	2.5	3.9	10.3	8.5	9.3	10.9	9.7	10.2
3	2.4	.9	1.7	5.9	3.0	4.5	10.0	8.3	9.1	11.1	9.5	10.2
4	1.6	.0	.9	6.1	4.3	5.2	10.4	8.4	9.3	11.4	9.8	10.5
5	3.2	.9	1.9	6.8	4.6	5.6	9.3	7.6	8.4	12.3	10.5	11.2
6	5.5	3.0	4.1	6.5	5.0	5.7	10.3	7.8	9.0	12.1	11.0	11.4
7	5.9	4.2	5.1	6.1	3.8	5.0	10.6	8.6	9.5	11.8	10.4	11.0
8	5.5	3.7	4.7	7.2	4.3	5.8	11.5	9.1	10.2	11.8	9.7	10.7
9	5.7	3.8	4.8	8.1	5.3	6.8	12.2	10.3	11.1	11.7	10.6	11.3
10	5.8	4.2	5.0	8.4	6.2	7.3	11.2	9.2	10.3	11.5	9.9	10.6
11	5.2	3.5	4.4	8.7	5.7	7.3	9.2	7.9	8.2	12.4	11.0	11.6
12	5.1	3.1	4.1	9.4	7.1	8.2	8.0	6.9	7.6	13.3	11.5	12.2
13	5.1	2.7	3.9	8.8	7.1	7.9	8.1	7.1	7.8	13.3	12.1	12.5
14	5.3	2.8	4.1	8.4	6.4	7.3	7.7	6.3	6.9	13.1	11.9	12.4
15	5.9	3.2	4.5	8.4	5.9	7.1	8.8	6.8	7.6	13.0	11.4	12.0
16	5.7	3.7	4.8	8.7	6.2	7.3	10.5	7.8	9.1	13.4	12.1	12.7
17	6.2	3.7	5.0	7.6	6.2	6.9	11.7	9.5	10.3	13.5	12.0	12.6
18	7.0	4.6	5.7	6.5	5.0	5.8	10.2	7.9	9.2	13.3	12.4	12.7
19	6.6	4.8	5.5	7.0	4.3	5.6	8.7	6.7	7.8	13.2	11.9	12.4
20	6.9	4.0	5.4	7.4	4.5	5.8	8.2	7.1	7.7	13.0	12.0	12.4
21	6.8	6.0	6.3	8.5	5.6	7.0	8.1	5.7	6.9	12.9	11.7	12.2
22	6.0	4.5	5.6	9.3	6.8	8.0	10.3	7.1	8.6	13.6	11.8	12.5
23	5.3	3.6	4.4	8.4	7.2	7.9	12.0	8.7	10.2	13.2	12.2	12.7
24	5.6	3.0	4.1	7.2	5.7	6.5	12.8	10.3	11.5	12.4	11.0	11.7
25	5.2	2.9	4.2	6.3	4.6	5.4	12.3	11.2	11.6	11.2	10.4	10.8
26	5.3	3.6	4.3	7.2	4.4	5.7	11.6	10.8	11.1	12.4	10.3	11.3
27	4.7	2.8	3.6	7.8	5.6	6.7	11.8	10.1	10.9	13.2	11.2	12.1
28	3.5	1.2	2.3	9.4	6.4	7.8	10.7	7.9	9.0	13.9	12.6	13.2
29	3.8	1.9	2.9	9.4	7.6	8.3	8.0	5.8	7.0	15.7	12.1	13.8
30	--	--	--	9.4	7.3	8.3	10.4	7.6	8.8	16.3	14.4	15.2
31	--	--	--	10.4	7.6	8.9	--	--	--	16.1	13.8	14.9
MONTH	7.0	.0	4.1	10.4	2.1	6.5	12.8	5.7	9.1	16.3	9.5	12.0
	JUNE				JULY				AUGUST			
1	17.4	13.7	15.5	17.9	15.7	16.7	23.5	20.7	22.3	19.8	17.4	18.7
2	18.2	15.0	16.5	18.7	16.6	17.5	--	--	--	20.5	17.3	18.9
3	18.4	15.3	16.8	18.8	17.1	17.8	21.7	19.3	20.4	21.1	17.8	19.5
4	18.7	15.9	17.3	19.4	17.4	18.3	22.6	19.4	21.1	20.8	18.2	19.7
5	19.1	16.7	17.8	18.8	17.5	18.2	21.7	18.5	20.3	19.8	17.9	18.6
6	19.1	16.8	17.8	19.4	16.6	17.9	21.3	18.1	19.8	18.4	17.0	17.6
7	18.9	16.4	17.6	19.5	17.9	18.6	21.8	18.6	20.3	18.7	16.1	17.4
8	18.7	16.5	17.5	18.0	16.8	17.5	22.4	19.4	20.9	18.7	15.8	17.2
9	18.7	16.5	17.5	18.8	16.1	17.3	21.7	19.4	20.7	--	--	--
10	19.4	16.9	18.0	20.6	17.4	18.9	21.8	18.4	20.3	19.3	16.3	17.8
11	18.6	16.8	17.5	21.3	18.2	19.7	22.2	18.8	20.6	18.8	17.3	18.0
12	18.4	16.6	17.4	21.0	18.5	19.6	22.3	19.1	20.8	18.0	16.8	17.4
13	18.1	17.0	17.4	20.7	17.9	19.2	22.6	19.2	21.1	18.2	16.1	17.0
14	17.3	16.2	17.0	21.0	18.0	19.4	22.7	19.9	21.4	17.5	16.3	16.9
15	16.2	15.3	15.8	19.8	18.0	18.7	22.5	20.0	21.3	18.1	15.5	16.7
16	15.8	14.5	15.1	20.3	17.7	18.8	23.0	20.0	21.5	17.6	15.7	16.6
17	18.2	15.1	16.7	21.3	18.9	20.0	22.1	20.0	21.1	16.2	14.4	15.4
18	17.0	15.7	16.4	22.1	19.2	20.5	21.1	19.5	20.3	14.4	11.7	13.0
19	15.7	14.9	15.3	21.8	19.0	20.5	21.1	18.4	19.8	12.0	10.4	11.4
20	15.2	14.1	14.7	23.4	18.9	21.0	20.8	18.7	19.9	14.5	11.5	12.9
21	15.7	14.2	14.9	23.4	19.9	21.7	21.8	19.2	20.5	15.7	12.8	14.2
22	16.0	14.4	15.3	23.5	20.4	22.0	21.1	18.9	20.1	16.2	13.5	15.0
23	15.7	14.7	15.2	23.1	20.4	22.0	22.1	18.6	20.3	17.0	14.7	15.9
24	16.0	14.7	15.3	22.9	20.1	21.8	22.3	19.6	21.0	17.5	15.0	16.3
25	15.9	14.8	15.3	22.6	20.1	21.4	21.8	19.9	20.9	16.4	14.8	15.6
26	15.9	14.7	15.3	23.3	19.6	21.4	21.0	19.4	20.2	14.9	12.5	13.5
27	15.1	14.2	14.7	23.3	20.2	21.8	21.3	19.3	20.4	13.0	10.6	11.8
28	15.1	13.9	14.5	22.4	20.8	21.6	22.4	19.4	20.9	13.4	10.7	12.0
29	16.7	14.9	15.8	21.6	20.1	20.9	22.0	19.3	20.7	14.4	11.1	12.7
30	16.6	15.7	16.2	23.5	19.9	21.5	21.3	18.7	20.1	15.3	12.2	13.7
31	--	--	--	23.7	20.4	22.3	20.8	17.9	19.4	--	--	--
MONTH	19.4	13.7	16.3	23.7	15.7	19.8	--	--	--	--	--	--

## REED WASH BASIN

## 09153290 REED WASH NEAR MACK, CO

LOCATION.--Lat 39°12'41", long 108°48'11", in SE<sup>1/4</sup>SW<sup>1/4</sup> sec.27, T.2 N., R.3 W., Ute Meridian, Mesa County, Hydrologic Unit 14010005, on right bank 250 ft upstream from unnamed tributary, 0.4 mi downstream from Peck and Beede Wash, and 3.5 mi east of Mack.

DRAINAGE AREA.--15.7 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,505 ft above sea level, from topographic map.

REMARKS.-- No estimated daily discharges. Records good. Flow is mostly return flow and waste water from irrigated lands under Government Highline and Grand Valley Canals.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	67	8.2	5.7	5.1	3.7	3.4	44	48	60	91	73
2	51	73	8.0	5.6	3.8	3.7	3.5	45	47	63	92	69
3	56	75	7.9	5.6	3.6	3.5	4.3	37	42	66	87	73
4	56	77	7.9	5.6	3.6	3.6	40	34	37	68	79	75
5	58	74	28	5.4	3.7	3.9	89	42	24	73	79	75
6	58	75	84	5.1	3.8	3.7	59	44	50	79	85	85
7	57	57	60	5.1	3.9	3.3	72	47	62	81	86	70
8	56	19	56	5.1	3.8	3.5	72	43	52	71	78	70
9	55	18	55	5.1	3.8	3.6	54	43	57	65	70	65
10	58	17	54	5.1	3.8	3.6	58	47	56	75	64	61
11	54	15	56	4.9	3.8	3.5	71	46	53	69	73	65
12	58	14	57	4.6	3.7	3.6	62	52	54	73	85	74
13	55	13	59	4.6	3.7	3.7	67	45	53	74	90	71
14	55	13	43	4.7	4.0	3.9	68	44	53	79	88	68
15	60	12	8.1	4.7	3.8	3.5	69	52	58	82	85	58
16	58	12	7.7	4.7	3.7	3.4	67	53	56	81	95	61
17	54	11	7.1	5.8	3.8	3.4	68	62	60	88	98	62
18	56	11	6.7	4.1	3.7	3.4	67	67	60	79	97	63
19	57	11	6.6	4.2	3.7	3.4	63	58	59	80	91	69
20	59	12	6.6	4.2	4.0	3.4	84	59	55	75	99	68
21	64	11	6.6	4.3	6.0	3.6	81	54	65	76	102	63
22	67	10	6.4	4.4	5.6	3.5	74	63	68	77	92	64
23	62	9.4	6.1	4.1	3.5	3.6	61	67	59	73	94	65
24	62	9.0	6.1	4.0	3.7	3.8	57	74	63	72	82	63
25	67	9.0	6.1	4.1	3.7	3.5	51	80	68	80	80	71
26	66	9.1	6.1	3.8	3.8	3.3	49	51	71	75	80	69
27	68	8.7	6.1	3.9	3.5	3.2	50	49	74	81	81	69
28	74	8.6	6.1	4.0	3.5	3.3	40	54	72	90	83	67
29	74	8.4	6.1	4.0	3.5	3.5	44	53	65	98	71	68
30	64	8.3	6.1	3.9	--	3.5	51	49	66	90	76	68
31	64	--	6.1	8.2	--	3.5	--	51	--	84	77	--
TOTAL	1855	767.5	694.7	148.6	113.6	109.6	1699.2	1609	1707	2377	2630	2042
MEAN	59.8	25.6	22.4	4.79	3.92	3.54	56.6	51.9	56.9	76.7	84.8	68.1
MAX	74	77	84	8.2	6.0	3.9	89	80	74	98	102	85
MIN	51	8.3	6.1	3.8	3.5	3.2	3.4	34	24	60	64	58
AC-FT	3680	1520	1380	295	225	217	3370	3190	3390	4710	5220	4050

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1996, BY WATER YEAR (WY)

MEAN	77.6	21.0	14.2	5.95	4.57	7.55	46.4	67.1	67.1	73.2	78.1	78.1
(WY)	99.4	39.5	29.0	15.3	6.67	26.8	65.3	112	95.9	98.1	96.3	115
MAX	1977	1994	1989	1986	1976	1981	1986	1980	1978	1981	1978	1978
MIN	59.8	11.5	6.63	3.41	3.29	2.85	18.5	43.1	47.6	58.4	60.0	61.1
(WY)	1996	1976	1977	1982	1983	1983	1979	1992	1992	1991	1991	1989

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1976 - 1996

ANNUAL TOTAL	14842.8		15753.2									
ANNUAL MEAN	40.7		43.0									
HIGHEST ANNUAL MEAN												
LOWEST ANNUAL MEAN												
HIGHEST DAILY MEAN	89	Aug 11	102	Aug 21	150	May 12	1980					
LOWEST DAILY MEAN	2.5	Mar 31	3.2	Mar 27	2.0	Jan 31	1979					
ANNUAL SEVEN-DAY MINIMUM	2.7	Mar 26	3.4	Mar 26	2.5	Jan 22	1982					
INSTANTANEOUS PEAK FLOW			124	Jul 29	a390	Jul 23	1983					
INSTANTANEOUS PEAK STAGE			b4.84	Jul 29	c6.21	Sep 8	1991					
ANNUAL RUNOFF (AC-FT)	29440		31250		32810							
10 PERCENT EXCEEDS	70		80		87							
50 PERCENT EXCEEDS	55		54		56							
90 PERCENT EXCEEDS	4.0		3.7		4.0							

a-Gage height unknown.

b-Maximum recorded gage height, 4.89 ft, Dec 5.

c-Maximum recorded gage height.

**09153290 REED WASH NEAR MACK, CO--Continued**  
**(National Water-Quality Assessment Program station)**

**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--October 1995 to September 1996.

REMARKS.--Upper Colorado River Basin National Water Quality Assessment Program station (NAWQA).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCt- PER SECOND	PH (STAND- ANCE ARD (US/CM))	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CACO3)	MAGNE- SIUM, DIS- SOLVED (MG/L AS CA)	SODIUM, DIS- SOLVED (MG/L AS MG)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	
OCT 24...	1120	58	1880	8.0	6.5	10.0	650	170	54	130	2	5.0
NOV 22...	1020	9.6	4450	7.9	8.0	9.8	2300	550	220	300	3	9.5
JAN 11...	1245	5.1	4590	8.0	5.5	12.5	2400	580	240	320	3	9.3
FEB 09...	1205	4.0	4640	8.1	6.0	13.1	2300	540	240	320	3	9.0
MAR 08...	0823	2.9	4730	7.9	4.5	10.6	2400	530	250	340	3	10
APR												
05...	0840	106	869	8.0	10.0	9.1	280	74	22	68	2	3.2
18...	0945	70	964	8.0	9.5	8.9	330	89	27	68	2	3.1
20...	1615	86	893	8.0	9.5	9.1	300	80	24	58	1	3.1
MAY												
23...	0910	71	1150	7.7	12.0	8.6	460	120	40	59	1	3.2
JUN												
25...	1236	65	1380	7.9	16.5	7.6	620	160	53	76	1	4.1
JUL												
09...	1435	61	1610	8.1	20.0	7.9	660	170	58	89	2	4.5
24...	1034	81	1530	8.0	18.0	7.4	610	160	50	98	2	4.9
AUG												
28...	1355	85	1810	8.1	21.5	7.5	660	170	58	130	2	5.3
SEP												
12...	0852	81	1800	8.1	17.0	7.7	660	170	56	130	2	5.3
BICAR- <sup>a</sup> BONATE WATER DIS IT FIELD (MG/L AS HCO3)	ALKA- <sup>b</sup> LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3)	ALKA- <sup>c</sup> LINITY LAB DIS- SOLVED (MG/L AS CACO3)	SULFATE SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, SOLVED (MG/L AS SIO2)	SOLIDS, DIS- SOLVED (TONS (MG/L AC-FT)	SOLIDS, DIS- SOLVED (TONS (MG/L PER DAY)	NITRO- GEN, DIS- SOLVED (MG/L AS N)	
OCT 24...	218	179	--	540	130	0.30	9.5	1240	1150	1.69	194	0.04
NOV 22...	417	342	--	2200	200	0.30	10	3960	3730	5.39	103	0.05
JAN 11...	394	323	--	2300	230	0.30	10	4070	3920	5.54	56.0	0.07
FEB 09...	388	318	--	2300	230	0.20	8.2	4190	3870	5.70	45.3	0.08
MAR 08...	395	324	--	2400	240	0.30	6.6	4300	4000	5.85	33.7	0.08
APR												
05...	135	111	--	200	78	0.40	9.4	555	524	0.75	159	<0.01
18...	151	124	--	250	68	0.30	9.7	609	593	0.83	115	0.01
20...	137	112	--	230	64	0.30	9.0	594	539	0.81	138	0.02
MAY												
23...	152	124	--	390	49	0.20	8.9	812	751	1.10	156	0.02
JUN												
25...	144	118	--	510	57	0.30	8.5	920	948	1.25	161	0.04
JUL												
09...	172	141	--	600	78	0.30	8.5	1180	1100	1.60	194	0.03
24...	--	--	163	500	95	0.30	8.1	1090	1020	1.48	238	0.04
AUG												
28...	218	179	--	590	140	0.30	9.3	1280	1220	1.74	294	0.02
SEP												

a-Field dissolved bicarbonate, determined by incremental titration method.

b-Field total dissolved alkalinity, determined by incremental titration method.

c-Lab total dissolved alkalinity, determined by fixed end-point titration method.

## REED WASH BASIN

**091532900 REED WASH NEAR MACK, CO--Continued**  
**(National Water-Quality Assessment Program station)**

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO-	NITRO-	NITRO-	NITRO-	PHOS-		CARBON,		MANGA-	SELE-		
	GEN, NO <sub>2</sub> +NO <sub>3</sub>	GEN, AMMONIA	GEN, AM- MONIA +	GEN, AM- MONIA +	PHOS- PHORUS	PHORUS	ORTHOPHOSPHATE	ORGANIC CARBON	SUSPENDED IRON, DIS-	NESE, DIS-	NIUM, DIS-	
	SOLVED	SOLVED	TOTAL	DIS.	TOTAL	SOLVED	SOLVED	TOTAL	SOLVED	SOLVED	SOLVED	
	(MG/L)	(MG/L)	(MG/L)	(AS N)	(MG/L)	(MG/L)	(AS P)	(MG/L)	(MG/L)	(UG/L)	(UG/L)	
	AS N)	AS N)	AS N)	AS N)	AS P)	AS P)	AS P)	AS C)	AS C)	AS FE)	AS SE)	
OCT 24...	1.8	0.18	0.9	0.3	0.47	0.13	0.12	3.2	3.7	<3	19	23
NOV 22...	8.3	0.06	0.5	0.4	0.03	<0.01	<0.01	4.8	0.4	<9	100	74
JAN 11...	7.9	0.08	0.4	0.4	<0.01	<0.01	<0.01	4.9	0.2	<15	100	78
FEB 09...	7.7	0.13	0.5	0.4	<0.01	<0.01	<0.01	5.0	0.4	<9	110	110
MAR 08...	7.4	0.06	0.5	0.5	<0.01	0.02	<0.01	5.4	0.3	9	130	150
APR 05...	0.55	0.05	0.3	0.2	0.04	0.03	0.02	3.1	5.8	6	17	7
18...	0.68	0.03	0.9	0.2	0.43	0.04	0.05	3.4	4.8	6	16	9
20...	0.66	0.04	1.1	0.3	0.60	0.06	0.06	3.6	5.1	8	18	8
MAY 23...	1.3	0.04	1.9	0.3	1.2	0.08	0.08	4.7	7.7	8	27	18
JUN 25...	1.7	0.07	1.9	0.3	1.1	0.07	0.08	4.0	8.2	7	30	22
JUL 09...	2.1	0.06	2.6	0.3	1.4	0.04	0.05	3.5	>10	3	20	20
24...	1.7	0.08	2.9	0.4	1.4	0.13	0.12	4.1	>5.0	5	16	16
AUG 28...	1.8	0.02	0.9	0.3	0.34	0.04	0.04	3.8	3.7	<3	20	17
SEP 12...	1.6	0.02	0.6	0.3	0.17	0.02	0.03	3.4	2.0	4	20	13

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-	SPE-	DATE	DIS-	SPE-		
		CHARGE, INST.	CIFIC		CHARGE, INST.	CIFIC		
		CUBIC FEET	CON- DUCT-	TEMPER- ATURE	CUBIC FEET	CON- DUCT-	TEMPER- ATURE	
		PER SECOND	ANCE (US/CM)	WATER (DEG C)	PER SECOND	ANCE (US/CM)	WATER (DEG C)	
MAR 21...	1440	3.7	4740	12.5	AUG 09...	80	1800	17.5
APR 29...	1655	39	1300	14.0				

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-	SEDI-	DATE	DIS-	SEDI-		
		CHARGE, INST.	MENT, DIS-		CHARGE, INST.	MENT, DIS-		
		CUBIC FEET	MENT, SUS-	SUS-	CUBIC FEET	SUS-		
		PER SECOND	PENDED (MG/L)	PENDED (T/DAY)	PER SECOND	PENDED (MG/L)	PENDED (T/DAY)	
OCT 24...	1120	58	397	62	APR 18...	0945	70	442 84
NOV 22...	1020	9.6	46	1.2	20...	1615	86	613 142
22...	1025	9.6	42	1.1	20...	1620	86	625 145
JAN 11...	1245	5.1	97	1.3	MAY 23...	0910	71	1210 231
FEB 09...	1205	4.0	71	0.77	JUN 25...	1236	65	1090 191
MAR 08...	0823	2.9	34	0.27	JUL 09...	1435	61	1540 254
APR 05...	0835	106	729	209	JUL 24...	1034	81	1470 321
05...	0840	106	684	196	AUG 28...	1355	85	423 97
					SEP 12...	0852	81	294 64

d-Suspended-sediment concentration determined from a subsample split of a composite sample.

**09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE**

LOCATION.--Lat 39°07'58", long 109°01'35", in SE<sup>1/4</sup>NW<sup>1/4</sup> sec.5, T.11 S., R.104 W., Mesa County, Hydrologic Unit 14010005, on right bank 0.5 mi downstream from McDonald Creek, 1.7 mi upstream from Colorado-Utah State line, and 12 mi southwest of Mack.

DRAINAGE AREA.--17,843 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--May 1951 to current year.

REVISED RECORDS.--WRD Colo. 1974: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 4,325 ft above sea level, from topographic map.

May 1951 to October 1979, water-stage recorder at site 5.7 mi upstream at different datum. October 1979 to March 1995, water stage recorder at site 0.2 mi downstream at same datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, and diversions for irrigation. (Records include all return flow from irrigated areas).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6820	5730	5620	5300	4710	4320	6600	10800	12200	15600	4020	3400
2	6290	6060	5670	5330	4400	4280	6880	11100	12200	14400	3880	3380
3	6040	6130	5650	5260	4050	4380	7460	11200	12600	13000	3740	3350
4	5890	5960	5490	5280	3760	4390	8100	11400	13800	12200	3610	3360
5	5950	5910	5420	5400	3780	4450	8140	11600	14900	11300	3620	3300
6	5950	5920	5580	5470	4090	4670	7730	13100	16000	11000	3530	3530
7	5980	6540	5560	5280	4390	4600	7850	14600	17100	10500	3330	3960
8	5910	6200	5610	5160	4360	4190	8240	15900	17200	10400	3130	4320
9	5860	6110	5590	e5000	4400	4130	8740	16800	17200	10200	3090	4110
10	5780	6380	5480	e4900	4400	4090	10000	17900	17000	9490	3050	3880
11	5690	6380	5450	4890	4410	4470	11300	17500	16600	8660	3080	3930
12	5620	6140	5450	4650	4270	4550	12100	17500	16300	8080	3060	4140
13	5500	5950	5570	4400	4170	4740	11400	19100	16500	7540	3050	4310
14	5580	6000	5780	4100	4110	4890	10900	21400	16500	7200	2880	4870
15	5680	5950	5580	4030	4150	4900	9860	22700	17000	6990	2680	4870
16	5640	5970	5440	4030	4260	5300	8580	23500	18700	7070	2580	4830
17	5540	5930	5250	4200	4300	5650	8360	25600	18300	6890	2720	4880
18	5460	5900	5230	4490	4310	5810	8650	28500	18400	6650	2890	5130
19	5440	5900	5070	4170	4430	5740	9020	28200	20200	6690	2990	5250
20	5380	5890	4920	4030	4500	5570	8890	28500	20400	6490	3200	5380
21	5340	5870	4930	4030	5360	5680	8310	27800	20300	6090	3130	5030
22	5350	5670	4930	4000	7540	5730	7950	24300	22500	5790	3130	4810
23	5420	5810	4850	e3900	6770	6030	7570	22200	23900	5430	3010	4740
24	5580	5790	4760	43800	5460	6580	7420	20600	22700	4980	3000	4690
25	5500	5760	4640	e3900	4850	6540	8280	18800	21000	4570	3120	4610
26	5350	5740	4620	e4000	4690	6130	10400	17500	19100	4320	3400	4600
27	5410	5780	4690	e3900	4570	6140	11600	17500	18200	4220	3570	4680
28	5480	5750	4730	e4050	4340	6130	11900	16000	18000	4040	3450	4730
29	5390	5600	4760	e4000	4370	6170	12100	14700	17600	4010	3340	4680
30	5770	5620	4940	4110	--	6350	11100	13300	16300	4210	3350	4500
31	5780	--	5140	4280	--	6540	--	12600	--	4280	3360	--
TOTAL	176370	178340	162400	139340	133200	163140	275430	572200	528700	242290	99990	131250
MEAN	5689	5945	5239	4495	4593	5263	9181	18460	17620	7816	3225	4375
MAX	6820	6540	5780	5470	7540	6580	12100	28500	23900	15600	4020	5380
MIN	5340	5600	4620	3800	3760	4090	6600	10800	12200	4010	2580	3300
AC-FT	349800	353700	322100	276400	264200	323600	546300	1135000	1049000	480600	198300	260300

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1996, BY WATER YEAR (WY)

MEAN	3906	3988	3591	3358	3444	3857	5914	14240	17530	7999	3843	3583
MAX	7672	6925	5993	6129	5996	7486	15600	37960	43830	29650	10190	6767
(WY)	1987	1987	1986	1985	1985	1986	1984	1984	1957	1995	1983	1984
MIN	1916	2363	2048	1871	1815	1984	1631	2283	2688	1662	1350	1361
(WY)	1957	1978	1964	1964	1964	1977	1977	1977	1977	1977	1977	1956

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1951 - 1996

ANNUAL TOTAL	3767100		2802650									
ANNUAL MEAN		10320		7658						6305		
HIGHEST ANNUAL MEAN										13470		1984
LOWEST ANNUAL MEAN										2559		1977
HIGHEST DAILY MEAN	48100	Jun 18		a28500	May 18					68300	May 27	1984
LOWEST DAILY MEAN	2240	Jan 24		2580	Aug 16					960	Sep 7	1956
ANNUAL SEVEN-DAY MINIMUM	2450	Jan 19		2830	Aug 13					1110	Sep 2	1956
INSTANTANEOUS PEAK FLOW				29100	May 20				b69800		May 27	1984
INSTANTANEOUS PEAK STAGE					11.33	May 20			c16.12		May 27	1984
ANNUAL RUNOFF (AC-FT)	7472000		5559000						4568000			
10 PERCENT EXCEEDS	32300		17000						14100			
50 PERCENT EXCEEDS	5640		5580						3940			
90 PERCENT EXCEEDS	2770		3770						2240			

e-Estimated.

a-Also occurred May 20.

b-At site 0.2 mi downstream, at present datum.

c-From high-water mark.

**09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE--Continued**  
**(National Water-Quality Assessment Program station)**

**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--October 1969 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1979 to current year.

WATER TEMPERATURE: October 1979 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1979.

REMARKS.--October 1979, water-quality data collection was moved 5.5 miles upstream to this site from previous site 09163530.

Water-quality records for this site are considered to be equivalent to data obtained at old site. Data from the old site are stored with this station. Unpublished maximum and minimum specific conductance data available in district office. Daily records of water temperature are good. Daily records of specific conductance are good except April-June, which are fair, and July-September, which are poor. Interruptions in data are due to instrument malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,940 microsiemens Aug. 13, 1981; minimum, 277 microsiemens June 11, 1985.

WATER TEMPERATURE: Maximum, 27.0°C Aug. 7-9, 1981; minimum, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 1,510 microsiemens Sept. 13; minimum, 304 microsiemens May 18.

WATER TEMPERATURE: Maximum, 24.7°C July 30-31; minimum, 0.0°C on several days in Dec. and Jan.

**WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996**

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO <sub>3</sub> )	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	
OCT 27...	1145	5440	1050	8.4	8.5	10.4	360	93	30	79	2	3.3	
DEC 05...	1405	5470	896	8.4	6.5	12.4	290	73	25	72	2	2.7	
JAN 09...	1305	5230	843	8.0	1.0	12.2	260	67	22	71	2	2.8	
FEB 08...	1235	4380	990	8.3	4.0	11.3	300	78	26	87	2	3.3	
MAR 12...	1225	4540	975	8.5	8.5	10.0	290	73	26	88	2	3.3	
APR 23...	1032	7680	675	8.2	10.0	9.7	230	61	18	49	1	2.5	
MAY 14...	1309	21100	380	8.2	14.0	8.5	140	39	9.8	20	0.7	1.6	
	21...	1200	28300	318	8.2	12.5	9.2	110	33	7.9	15	0.6	1.4
JUN 06...	1055	16100	449	8.2	16.0	8.4	160	46	12	27	0.9	1.6	
	26...	1435	18600	385	8.2	16.5	8.6	140	40	9.5	21	0.8	1.7
JUL 09...	0803	10500	575	8.3	18.5	7.6	190	53	14	38	1	2.1	
	23...	1355	5540	874	8.5	23.0	8.0	300	83	22	62	2	2.9
AUG 27...	1207	3640	1230	8.4	21.5	7.3	410	110	33	93	2	4.1	
SEP 10...	1038	3960	1260	8.4	18.5	7.9	440	120	35	90	2	4.2	

**09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE--Continued**  
**(National Water-Quality Assessment Program station)**

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	BICAR-a	CAR-b	ALKA-c	CHLO-	FLUO-	SILICA,	SOLIDS,	SOLIDS,	SOLIDS,	NITRO-	
	BONATE	BONATE	LINITY	SULFATE	RIDE,	RIDE,	RESIDUE AT 180	SUM OF CONSTITUENTS,	SOLVED	GEN, NITRITE	
DIS IT	DIS IT	WAT DIS	TOT IT	DIS-	DIS-	SOLVED	DEG. C	SOLVED	SOLVED	DIS-	
FIELD	FIELD	FIELD	SOLVED	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(TONS)	DIS-	
DATE	MG/L AS	MG/L AS	MG/L AS	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(TONS)	SOLVED	
	HCO3	CO3	CACO3	AS SO4)	AS CL)	AS F)	SIO2)	AS	PER AC-FT)	PER DAY)	(MG/L AS N)
OCT											
27...	174	--	149	280	70	0.3	10	696	653	0.95	10200
DEC											
05...	142	2	120	210	63	0.3	8.7	555	528	0.75	8200
JAN											
09...	153	--	126	180	72	0.3	11	507	504	0.69	7160
FEB											
08...	157	--	129	220	86	0.4	11	615	592	0.84	7270
MAR											
12...	138	2	117	210	84	0.3	9.7	604	566	0.82	7400
APR											
23...	134	--	110	150	44	0.3	11	419	404	0.57	8690
MAY											
14...	93	--	76	72	16	0.2	9.9	242	215	0.33	13800
21...	90	--	74	58	12	0.2	9.1	194	182	0.26	14800
JUN											
06...	110	--	90	91	23	0.2	8.5	273	265	0.37	11900
26...	81	--	66	78	17	0.3	9.5	250	218	0.34	12600
JUL											
09...	110	4	96	130	34	0.3	8.9	362	340	0.49	10200
23...	116	5	103	220	60	0.4	7.4	564	522	0.77	8440
AUG											
27...	168	5	146	350	84	0.4	10	816	777	1.11	8020
SEP											
10...	193	4	164	370	80	0.4	12	852	815	1.16	9110
DATE	NITRO-GEN, NO2+NO3	NITRO-GEN, AMMONIA	NITRO-GEN, AM- MONIA + ORGANIC	NITRO-GEN, AM- MONIA + ORGANIC	PHOS-PHORUS DIS.	PHOS-PHORUS TOTAL	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC SUS-PENDED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED (MG/L AS C)	MANGANESE, IRON, DIS-SOLVED (UG/L AS FE)
	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS P)	(MG/L AS P)	(MG/L AS P)	(MG/L AS P)	(MG/L AS C)	(MG/L AS C)	(UG/L AS MN)
OCT											
27...	0.43	<0.015	0.2	<0.2	0.01	0.02	<0.01	2.6	0.4	14	11
DEC											
05...	0.42	<0.015	0.2	<0.2	0.01	0.01	<0.01	2.4	0.6	8	14
JAN											
09...	0.58	0.04	0.2	<0.2	<0.01	<0.01	0.02	2.2	0.3	7	17
FEB											
08...	0.64	0.05	0.5	<0.2	0.07	0.02	0.01	2.5	0.9	<3	24
MAR											
12...	0.41	0.07	0.3	<0.2	0.09	0.03	0.02	2.4	0.9	<3	19
APR											
23...	0.42	0.04	0.5	0.2	0.03	0.02	0.02	3.1	1.0	7	10
MAY											
14...	0.17	0.03	1.4	0.2	0.57	0.02	<0.01	3.8	>5.0	18	7
21...	0.23	0.02	0.7	<0.2	0.25	<0.01	0.01	3.9	2.9	21	5
JUN											
06...	0.30	0.06	0.4	<0.2	0.16	0.01	0.02	2.9	1.4	12	2
26...	0.20	<0.015	0.3	<0.2	0.12	<0.01	0.01	2.9	1.1	13	3
JUL											
09...	0.32	0.03	0.3	<0.2	0.07	<0.01	0.02	2.4	0.6	8	<1
23...	0.60	0.05	0.3	0.2	0.05	<0.01	0.01	2.8	0.9	5	1
AUG											
27...	1.10	0.03	0.7	0.2	0.21	0.02	0.01	3.5	2.3	<3	4
SEP											
10...	1.00	0.07	0.8	0.3	0.21	0.01	0.02	3.3	3.3	<3	2

a-Field dissolved bicarbonate, determined by incremental titration method.

b-Field dissolved carbonate, determined by incremental titration method.

c-Field total dissolved alkalinity, determined by incremental titration method.

## COLORADO RIVER MAIN STEM

**09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE--Continued**  
**(National Water-Quality Assessment Program station)**

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SEDI- MENT, MENT, SUS-	SED. SUSP. DIS- CHARGE, SUS- PENDED (MG/L)	SIEVE DIAM.	% FINER THAN .062 MM	SAMPLER <sup>d</sup> TYPE (CODE)
OCT 27...	1145	5440		19 279	--		3039
DEC 05...	1405	5470		20 295	--		3039
JAN 09...	1305	5230		17 240	--		3039
FEB 08...	1235	4380		75 887	--		3039
MAR 12...	1225	4540		89 1090	--		3039
	1230	4540		114 1400	--		3009
APR 23...	1032	7680		97 2010	--		3039
	1100	7740		130 2720	86		3009
MAY 14...	1309	21100		802 45700	--		3039
	1342	21100		842 48000	67		3009
	1200	28300		420 32100	--		3039
	1215	28200		428 32600	62		3009
JUN 06...	1055	16100		195 8480	--		3039
	1128	16100		256 11100	60		3009
	1435	18600		138 6930	--		3039
	1534	18400		157 7800	63		3009
JUL 09...	0803	10500		89 2510	--		3039
	0838	10500		96 2710	81		3009
	1355	5540		80 1200	--		3039
	1445	5540		121 1810	93		3009
AUG 27...	1207	3640		192 1890	--		3039
	1255	3640		282 2770	98		3009
SEP 10...	1038	3960		259 2770	--		3039
	1043	3960		257 2750	--		3039
	1132	3960		360 3850	99		3009

d-Sampler type: code 3039 is a D-77TM water-quality sampler; code 3009 is a D-74 suspended-sediment sampler.

**09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE--Continued**  
**(National Water-Quality Assessment Program station)**

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	1190	1160	1190	1050	1020	1030	942	928	937	916	899	910
2	1160	1070	1110	1030	1010	1020	948	926	940	899	876	891
3	1070	1050	1060	1030	1020	1030	926	920	923	876	848	862
4	1080	1050	1060	1030	1000	1010	946	921	933	861	836	847
5	1080	1070	1080	1000	990	995	953	871	908	868	855	862
6	1080	1070	1080	1010	996	1000	910	870	880	868	845	862
7	1080	1060	1070	1010	977	994	877	873	875	848	832	840
8	1060	1060	1060	980	954	961	883	875	878	852	814	830
9	1060	1060	1060	970	955	959	888	874	879	---	---	---
10	1060	1060	1060	985	955	963	891	881	887	---	---	---
11	1060	1050	1060	980	940	954	885	877	881	888	871	877
12	1060	1060	1060	964	948	959	888	881	885	928	888	903
13	1070	1060	1060	951	933	942	892	879	887	948	915	934
14	1070	1060	1060	966	944	956	891	879	886	984	915	950
15	1070	1050	1060	959	948	954	881	870	873	1020	968	990
16	1050	1040	1040	952	943	948	890	875	884	1030	1000	1020
17	1040	1030	1040	959	931	942	891	875	882	1050	1000	1030
18	1040	1030	1040	936	930	933	904	881	890	1040	1000	1020
19	1050	1030	1040	947	931	938	918	902	908	1030	1000	1020
20	1040	1030	1040	943	933	938	933	901	913	1040	1020	1030
21	1050	1040	1040	939	926	933	941	919	928	1040	1010	1020
22	1060	1040	1050	951	926	935	941	912	929	1040	1030	1040
23	1070	1060	1070	939	926	932	950	919	931	1030	1010	1020
24	1080	1070	1080	934	927	931	948	917	928	1040	996	1010
25	1080	1070	1070	933	925	929	937	914	925	1030	1000	1010
26	1080	1060	1070	930	925	928	939	914	922	1020	996	1010
27	1080	1070	1080	935	927	931	946	932	938	1050	1020	1040
28	1090	1080	1090	939	929	935	955	939	946	1050	1010	1040
29	1090	1070	1080	941	933	937	954	927	935	1010	985	998
30	1080	1070	1070	937	926	932	933	912	921	1030	993	1010
31	1070	1040	1060	---	---	---	926	916	920	1030	993	1010
MONTH	1190	1030	1070	1050	925	958	955	870	908	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
1	1010	941	979	937	918	929	726	708	713	544	529	536
2	941	932	936	936	921	928	709	697	701	537	528	533
3	1020	938	987	938	926	932	700	675	685	535	525	529
4	1030	1010	1020	932	921	926	678	650	663	532	521	529
5	1030	1020	1020	921	912	915	667	638	647	532	520	524
6	1030	1010	1020	918	909	913	645	634	640	521	485	505
7	1030	1010	1020	916	908	913	669	643	655	485	447	468
8	1020	955	984	946	915	929	667	654	661	456	420	439
9	986	953	971	982	946	961	654	630	643	426	400	415
10	983	963	974	1000	982	996	630	588	609	400	383	388
11	977	963	970	1000	976	996	588	559	576	397	383	390
12	982	964	973	976	902	939	562	533	548	401	390	394
13	976	963	973	902	885	897	549	529	541	391	380	388
14	984	975	978	885	868	873	571	545	558	380	359	374
15	991	982	986	889	869	877	600	569	581	359	320	341
16	1000	986	994	880	809	838	637	600	616	323	312	317
17	999	976	989	809	795	799	664	637	654	316	313	314
18	984	970	977	799	772	787	661	646	656	314	304	311
19	973	966	971	774	766	770	646	625	634	316	308	313
20	974	960	968	767	760	764	630	620	626	319	314	317
21	973	910	953	787	763	768	649	630	638	324	316	320
22	910	856	882	816	776	792	669	648	660	345	324	335
23	929	865	907	779	758	770	678	668	673	356	345	352
24	902	876	893	772	748	759	684	676	680	371	356	364
25	896	875	885	769	719	738	682	639	669	399	369	383
26	918	895	906	736	718	727	639	562	603	419	399	411
27	938	918	930	736	712	722	562	506	533	425	418	422
28	936	924	930	763	724	736	519	491	509	442	421	432
29	936	930	933	774	735	743	503	488	493	473	439	456
30	---	---	---	736	724	728	532	503	519	493	473	482
31	---	---	---	729	716	721	---	---	---	509	488	499
MONTH	1030	856	962	1000	712	841	726	488	619	544	304	412

## COLORADO RIVER MAIN STEM

**09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE--Continued**  
**(National Water-Quality Assessment Program station)**

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C.), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	515	509	512	417	405	412	1040	1020	1030	1290	1270	1280
2	512	499	505	434	416	426	1050	1040	1040	1280	1260	1270
3	501	488	493	462	431	445	1060	1050	1050	1280	1260	1270
4	491	461	478	479	462	471	1070	1060	1070	1280	1270	1280
5	461	440	449	504	479	490	1080	1070	1080	1280	1260	1270
6	---	---	---	518	504	511	1100	1080	1090	1280	1260	1270
7	396	374	383	536	517	527	1110	1090	1110	1270	1250	1260
8	375	365	373	557	535	543	1120	1100	1110	1270	1250	1260
9	374	363	368	551	461	544	1120	1110	1120	1310	1250	1280
10	374	366	371	585	547	568	1140	1120	1130	1290	1250	1270
11	373	366	370	621	585	609	1140	1120	1130	1260	1250	1250
12	373	365	369	644	621	636	1150	1120	1140	1260	1250	1260
13	372	367	370	658	641	649	1150	1120	1140	1510	1250	1290
14	377	367	372	675	658	666	1150	1120	1140	1310	1250	1270
15	377	372	375	699	672	688	1200	1130	1170	1290	1260	1260
16	381	373	377	721	698	714	1220	1200	1210	1280	1240	1260
17	386	376	382	738	712	725	1260	1220	1240	1240	1200	1220
18	386	380	384	774	736	753	1260	1220	1240	1200	1130	1160
19	380	352	369	802	773	783	1240	1210	1230	1130	1090	1100
20	354	347	350	810	778	794	1230	1210	1220	1160	1110	1140
21	352	347	349	820	806	813	1240	1210	1230	1190	1160	1170
22	356	344	352	845	816	835	1250	1230	1240	1180	1140	1160
23	344	335	341	---	---	---	1270	1240	1250	1140	1100	1120
24	345	333	338	---	---	---	1280	1270	1270	1100	1070	1090
25	351	343	348	---	---	---	1290	1280	1290	1090	1060	1070
MONTH	---	---	---	---	---	---	1290	1020	1180	1510	1060	1200

TEMPERATURE, WATER (DEG. C.), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	14.3	13.2	13.8	11.0	10.0	10.5	5.2	4.4	4.8	2.1	1.4	1.7
2	14.4	13.3	13.9	10.3	8.8	9.3	5.2	4.5	4.9	1.7	.9	1.2
3	14.3	13.1	13.7	8.8	7.1	7.6	5.3	4.6	5.0	1.1	.6	.9
4	14.0	12.7	13.4	7.1	6.3	6.7	5.5	4.8	5.2	1.5	.6	1.0
5	13.1	12.0	12.5	6.5	5.6	6.2	6.6	5.5	6.0	2.0	1.1	1.5
6	12.3	10.7	11.4	6.6	5.9	6.3	7.2	6.3	6.7	1.7	1.2	1.5
7	11.8	10.3	11.0	7.7	6.6	7.1	6.9	6.0	6.4	1.7	.7	1.2
8	12.4	10.8	11.6	8.1	7.1	7.6	6.3	5.7	5.9	1.7	.7	1.2
9	12.5	11.1	11.8	8.1	7.5	7.9	5.9	5.1	5.4	---	---	---
10	12.9	11.4	12.1	8.0	7.0	7.7	5.3	4.7	5.0	---	---	---
11	13.3	11.6	12.4	7.0	6.0	6.5	4.9	4.3	4.6	2.3	1.3	1.8
12	13.4	12.4	12.9	6.4	5.5	5.9	5.0	4.6	4.8	2.1	1.1	1.6
13	13.3	12.1	12.7	6.4	5.3	5.9	6.2	5.0	5.7	1.9	1.0	1.5
14	12.4	10.8	11.5	7.2	6.2	6.7	6.4	5.8	6.1	1.9	1.0	1.4
15	12.0	10.6	11.3	7.7	6.6	7.2	6.0	5.0	5.4	2.0	1.1	1.5
16	11.8	10.7	11.3	7.7	7.0	7.4	5.2	4.4	4.7	2.3	1.3	1.8
17	12.2	10.6	11.4	7.7	6.9	7.4	4.7	4.0	4.3	2.7	2.0	2.5
18	12.4	10.9	11.7	7.4	6.7	7.1	4.0	3.1	3.5	2.0	1.1	1.3
19	12.2	11.1	11.6	7.2	6.4	6.8	3.1	2.4	2.7	1.3	.8	1.0
20	11.3	10.0	10.6	6.8	6.1	6.5	2.6	1.9	2.2	1.4	.3	.9
21	10.7	9.2	10.0	6.5	6.0	6.3	2.1	1.7	1.9	1.7	.7	1.1
22	10.1	8.6	9.4	6.8	6.0	6.4	2.1	1.2	1.6	1.1	.8	1.0
23	9.0	7.8	8.4	7.1	6.4	6.7	1.6	.7	1.1	1.4	.6	.9
24	8.5	7.5	8.0	6.9	6.4	6.7	1.0	.1	.6	1.1	.0	.5
25	8.6	7.2	7.9	6.6	6.1	6.3	.7	.0	.3	.8	.1	.5
26	9.2	7.8	8.4	6.1	5.3	5.7	.8	.1	.3	.6	.0	.2
27	9.9	8.5	9.1	5.3	4.9	5.1	.8	.1	.3	.5	.0	.2
28	9.9	8.8	9.4	4.9	4.3	4.5	.7	.1	.3	.9	.0	.3
29	9.9	8.9	9.4	4.4	3.5	4.0	1.3	.3	.7	1.4	.0	.7
30	10.2	9.0	9.6	4.8	3.7	4.2	1.7	.9	1.2	1.7	1.1	1.4
31	10.2	9.3	9.8	---	---	---	2.1	1.5	1.7	2.3	1.6	1.9
MONTH	14.4	7.2	11.0	11.0	3.5	6.7	7.2	.0	3.5	---	---	---

**09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE--Continued**  
**(National Water-Quality Assessment Program station)**

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY				MARCH				APRIL			
1	3.2	2.2	2.6	4.6	2.7	3.5	11.9	9.8	10.9	12.2	10.1	10.9
2	3.0	1.9	2.4	5.2	3.3	4.2	11.4	10.5	10.9	12.4	10.9	11.7
3	2.0	1.0	1.5	5.7	4.1	4.8	11.5	9.7	10.6	12.8	11.0	12.0
4	1.5	.4	1.0	6.2	5.1	5.6	11.3	10.2	10.8	13.2	11.2	12.3
5	3.0	1.2	1.9	6.6	5.7	6.1	11.2	9.9	10.6	13.9	11.6	12.7
6	4.0	2.6	3.2	7.0	6.1	6.4	11.1	9.3	10.3	13.9	12.2	13.3
7	4.2	2.9	3.5	6.8	5.5	6.1	11.7	10.3	11.0	13.9	12.1	13.1
8	5.1	3.6	4.3	7.2	5.1	6.1	12.9	11.0	11.9	13.6	11.8	12.8
9	5.4	4.3	4.8	7.9	6.0	6.9	13.6	11.9	12.8	14.3	12.3	13.2
10	5.4	4.7	5.0	8.3	6.7	7.4	13.5	12.0	12.6	13.3	11.6	12.4
11	5.2	4.4	4.8	9.2	7.4	8.2	12.0	10.4	10.9	13.8	11.7	12.7
12	5.0	3.8	4.4	9.9	8.3	9.0	10.4	9.1	9.7	14.6	12.5	13.5
13	5.0	3.5	4.2	9.7	8.8	9.5	9.7	8.3	8.8	14.9	13.3	14.1
14	5.0	3.5	4.3	9.3	8.3	8.7	9.1	7.5	8.3	14.7	13.4	14.0
15	5.6	4.0	4.7	9.6	7.8	8.7	9.8	7.6	8.7	14.3	13.0	13.7
16	5.8	4.4	5.0	10.0	8.2	9.1	10.4	9.0	9.8	14.3	13.1	13.7
17	5.9	4.4	5.2	9.5	8.6	9.1	11.0	10.2	10.6	14.0	13.0	13.6
18	6.9	5.4	6.0	9.0	7.8	8.4	11.0	10.0	10.6	14.0	13.1	13.5
19	6.2	5.6	5.9	8.4	6.4	7.5	10.0	8.0	9.1	13.5	12.4	13.0
20	6.0	5.6	5.8	8.8	6.8	7.7	9.6	8.0	8.7	13.3	12.5	13.0
21	6.4	5.8	6.3	9.3	7.2	8.2	9.2	7.2	8.1	13.1	12.1	12.6
22	6.4	4.6	5.4	10.3	8.3	9.3	10.0	8.1	9.1	13.0	11.8	12.4
23	4.7	3.8	4.3	10.0	8.8	9.4	11.7	9.9	10.7	13.0	12.4	12.7
24	4.6	3.4	4.0	8.8	7.8	8.3	12.7	11.3	12.0	12.7	11.6	12.1
25	4.3	3.6	4.0	8.1	6.9	7.4	13.5	12.3	12.9	11.6	10.9	11.3
MONTH	6.9	.4	4.1	11.2	2.7	7.6	13.7	7.2	10.5	15.6	10.1	12.8
	JUNE				JULY				AUGUST			
1	16.6	14.2	15.5	18.9	16.7	17.8	24.4	22.6	23.5	22.1	20.1	21.1
2	17.0	14.6	15.8	20.0	17.7	18.8	24.1	22.6	23.3	22.2	20.2	21.1
3	17.3	14.9	16.2	20.5	18.5	19.6	23.5	21.6	22.6	22.4	20.2	21.3
4	17.2	15.4	16.4	20.9	19.2	20.1	22.4	20.9	21.6	22.4	20.5	21.4
5	17.1	15.7	16.5	20.9	19.5	20.2	22.4	20.6	21.4	21.5	20.3	21.0
6	17.1	15.5	16.3	21.4	19.0	20.2	22.7	20.6	21.6	22.3	20.3	19.4
7	16.7	15.4	16.1	21.3	19.7	20.5	23.4	20.6	21.9	20.1	18.1	19.1
8	16.4	15.2	15.9	20.9	19.5	20.0	23.6	21.1	22.3	20.1	18.2	19.1
9	16.4	15.2	15.8	20.0	18.5	19.3	23.0	21.4	22.2	20.0	18.0	19.0
10	16.5	15.5	16.1	21.0	18.6	19.8	24.2	21.2	22.6	20.6	18.3	19.4
11	16.4	15.2	15.9	21.8	19.7	20.8	24.1	21.6	22.8	19.9	18.9	19.4
12	16.2	14.9	15.5	21.8	20.4	21.2	24.0	21.4	22.7	19.9	18.3	19.1
13	16.8	14.8	15.6	22.1	20.7	21.5	24.1	21.7	22.8	19.5	18.2	18.9
14	16.0	14.9	15.4	22.3	20.7	21.6	23.9	22.1	22.9	18.8	17.7	18.2
15	15.4	14.6	15.0	22.3	21.1	21.7	23.6	21.9	22.8	18.8	16.7	17.7
16	15.5	13.9	14.8	22.0	20.3	21.1	24.0	21.5	22.7	18.6	17.3	17.9
17	16.0	14.1	15.0	23.2	21.5	22.2	23.9	22.1	22.9	17.3	15.9	16.6
18	16.6	15.0	15.8	22.9	21.2	22.1	23.5	21.8	22.6	15.9	14.2	15.1
19	16.6	15.3	16.0	22.8	21.8	22.4	23.6	21.4	22.5	14.2	12.9	13.6
20	16.2	15.2	15.7	23.2	21.8	22.5	23.5	21.2	22.3	14.5	12.8	13.7
21	15.8	15.0	15.5	23.5	21.9	22.7	23.3	21.1	22.2	15.7	13.4	14.5
22	16.6	15.4	16.0	24.0	22.3	23.1	23.1	21.1	22.2	16.0	14.6	15.3
23	16.5	15.4	16.0	23.8	22.4	23.1	23.5	21.2	22.2	17.3	15.2	16.1
24	16.4	14.9	15.7	24.0	22.1	23.1	23.5	21.5	22.4	18.0	16.2	17.0
25	16.7	15.3	16.0	23.4	22.1	22.7	22.5	21.6	22.0	17.3	15.6	16.6
26	16.4	16.0	16.2	23.7	21.7	22.6	22.5	21.0	21.6	15.6	14.4	15.0
27	16.6	15.9	16.1	24.0	22.0	22.9	23.5	20.7	22.0	14.4	12.7	13.5
28	16.2	15.7	15.9	23.7	22.6	23.0	24.5	22.0	23.1	13.6	11.8	12.8
29	17.3	15.1	16.1	24.5	21.9	23.0	24.0	22.0	23.0	14.3	12.2	13.2
30	18.1	16.1	17.1	24.7	22.6	23.6	23.2	21.4	22.4	14.9	12.9	13.8
31	--	--	--	24.7	22.7	23.7	22.3	20.4	21.4	--	--	--
MONTH	18.1	13.9	15.9	24.7	1.0	21.5	24.5	20.4	22.4	22.4	11.8	17.3

## DOLORES RIVER BASIN

**09165000 DOLORES RIVER BELOW RICO, CO**

**LOCATION.**--Lat 37°38'20", long 108°03'35", Dolores County, Hydrologic Unit 14030002, on left bank at upstream side of Montelores bridge northwest of State Highway 145 (relocated), at Dolores-Montezuma County line, 0.5 mi upstream from Ryman Creek, and 4.0 mi southwest of Rico.

**DRAINAGE AREA.**--105 mi<sup>2</sup>.

**PERIOD OF RECORD.**--October 1951 to current year.

**GAGE.**--Water-stage recorder with satellite telemetry. Datum of gage is 8,422.23 ft above sea level.

**REMARKS.**--Records fair except for estimated daily discharges, which are poor. No diversion upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Greatest flood since at least 1885 occurred Oct. 5, 1911.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e64	23	e19	e17	e16	e20	54	305	183	92	32	25
2	e54	e22	e19	e16	e15	e19	63	353	194	83	30	26
3	e48	19	e19	e17	e15	e19	69	400	200	91	30	25
4	e44	22	e19	e18	e15	e19	61	461	207	92	33	24
5	e42	e21	e19	e17	e16	e19	56	540	207	80	30	25
6	e40	e21	e19	e17	e16	e19	60	593	209	73	26	40
7	e37	e21	e19	e16	e15	e18	76	598	202	66	26	33
8	e37	e20	e19	e16	e15	e19	94	625	186	68	28	28
9	e36	e19	e19	e15	e16	e19	123	603	171	80	29	24
10	e35	e20	e19	e15	e16	e20	142	561	156	93	26	23
11	33	e22	e20	e15	e17	e21	135	636	141	75	24	24
12	33	e22	e20	e15	e17	e23	117	707	135	67	24	30
13	32	e22	e20	e15	e17	e26	111	768	129	64	22	34
14	30	e21	e20	e15	e17	e28	98	776	183	59	22	48
15	29	e21	e19	e15	e17	e29	94	804	151	54	22	69
16	29	e21	e19	e14	e18	e30	92	871	128	52	21	58
17	28	e21	e19	e14	e18	e29	93	876	115	56	24	57
18	28	e20	e19	e14	e18	e26	89	800	103	62	25	55
19	28	e20	e18	e14	e18	e27	78	789	96	62	23	50
20	24	21	e17	e14	e19	e30	79	726	90	49	24	54
21	26	20	e17	e15	e20	e35	71	611	112	45	27	50
22	28	e19	e17	e15	e19	40	70	527	125	42	26	47
23	24	e18	e16	e14	e19	46	88	437	97	38	30	46
24	26	17	e15	e14	e19	42	135	336	83	38	45	43
25	24	19	e15	e14	e18	41	232	281	77	37	53	43
26	26	e19	e15	e13	e18	35	314	238	71	36	50	44
27	26	e19	e15	e14	e19	36	358	216	99	34	44	36
28	24	e19	e16	e14	e19	31	343	198	156	34	39	38
29	24	e19	e16	e15	e19	34	232	184	124	42	32	35
30	24	e19	e17	e16	---	30	207	194	101	38	29	32
31	24	---	e17	e16	---	35	---	183	---	33	26	---
TOTAL	1007	607	557	469	501	865	3834	16197	4231	1835	922	1166
MEAN	32.5	20.2	18.0	15.1	17.3	27.9	128	522	141	59.2	29.7	38.9
MAX	64	23	20	18	20	46	358	876	209	93	53	69
MIN	24	17	15	13	15	18	54	183	71	33	21	23
AC-FT	2000	1200	1100	930	994	1720	7600	32130	8390	3640	1830	2310

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 1996, BY WATER YEAR (WY)

MEAN	44.3	29.3	21.8	18.8	18.5	30.9	127	455	564	173	79.8	61.1
MAX	133	65.9	42.6	37.7	33.7	72.2	242	1015	1288	646	255	224
(WY)	1973	1987	1958	1958	1984	1972	1962	1958	1957	1957	1982	
MIN	14.5	12.1	7.81	7.74	7.49	11.0	42.9	98.9	70.7	37.1	29.7	17.1
(WY)	1957	1957	1990	1990	1994	1964	1975	1977	1977	1959	1996	1956

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1952 - 1996

ANNUAL TOTAL	68355	32191										
ANNUAL MEAN	187	88.0										
HIGHEST ANNUAL MEAN												
LOWEST ANNUAL MEAN												
HIGHEST DAILY MEAN	1510	Jun 17	876	May 17								
LOWEST DAILY MEAN	e13	Jan 18	e13	Jan 26								
ANNUAL SEVEN-DAY MINIMUM	14	Jan 17	14	Jan 22								
INSTANTANEOUS PEAK FLOW			1060	May 16								
INSTANTANEOUS PEAK STAGE			4.85	May 16								
ANNUAL RUNOFF (AC-FT)	135600	63850										
10 PERCENT EXCEEDS	735	203										
50 PERCENT EXCEEDS	54	29										
90 PERCENT EXCEEDS	16	16										

e-Estimated.

a-From rating curve extended above 1620 ft<sup>3</sup>/s.

b-Maximum gage height, 6.15 ft, Jun 10, 1952.

## 09166500 DOLORES RIVER AT DOLORES, CO

LOCATION.--Lat 37°28'21", long 108°29'49", in SW<sup>1/4</sup>SW<sup>1/4</sup> sec.10, T.37 N., R.15 W., Montezuma County, Hydrologic Unit 14030002, on left bank 0.25 mi upstream from bridge on State Highway 184 in Dolores and 0.8 mi upstream from Lost Canyon Creek.

DRAINAGE AREA.--504 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1895 to October 1903, August 1910 to November 1912, October 1921 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 859: 1937. WRD Colo. 1972: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,940 ft above sea level, from topographic map. See WSP 1713 or 1733 for history of changes prior to Oct. 7, 1952. Oct. 7, 1952 to Nov. 16, 1983, at site 0.4 mi downstream at different datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Diversions for irrigation of about 2,000 acres upstream from station. Flow partly regulated by Ground Hog Reservoir, capacity, 21,710 acre-ft. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1885, that of Oct. 5, 1911.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	190	e82	e61	e50	e47	e51	122	1080	465	242	111	100
2	162	e80	e59	e47	e46	e54	164	1280	466	219	108	97
3	147	75	e59	e47	e44	e54	204	1400	466	215	104	100
4	132	64	e59	e50	e44	e55	191	1540	478	206	104	96
5	124	70	e59	e53	e45	e56	168	1720	467	197	99	95
6	116	76	e58	e48	e48	e56	168	1860	468	188	94	111
7	111	74	e58	e47	e47	50	204	1840	453	182	90	123
8	109	72	e58	e47	e45	e53	275	1840	430	175	90	111
9	106	71	e57	e45	e46	e55	395	1900	392	189	95	101
10	104	e70	e56	e45	e47	e57	478	1680	361	217	96	97
11	100	62	e56	e45	e48	e60	490	1750	324	199	92	98
12	98	e72	e56	e44	e48	e61	417	1930	304	176	86	103
13	97	e75	e57	e44	e48	e68	424	2010	283	174	82	135
14	93	e75	e57	e44	e49	79	356	1990	321	170	79	168
15	91	e74	e56	e45	e50	82	329	1980	344	158	77	224
16	88	e72	54	e45	e52	84	370	2040	283	154	75	188
17	89	e72	e56	e47	e52	84	379	2040	246	160	73	176
18	86	72	e56	e44	e52	71	353	1910	217	190	79	180
19	83	70	e52	e44	e53	74	337	1810	196	185	81	175
20	82	e68	e52	e44	e55	81	334	1730	177	162	78	165
21	76	69	e52	e44	e57	96	307	1470	197	150	80	158
22	79	70	e51	e44	e58	115	309	1290	248	139	89	151
23	80	70	e47	e43	e56	134	360	1150	207	129	94	148
24	77	60	e44	e42	e55	122	542	922	174	123	111	144
25	79	59	e44	e41	e54	98	848	814	155	117	128	138
26	78	e60	e45	e37	e54	98	1140	707	148	119	144	138
27	80	59	e45	e41	e52	88	1280	625	179	117	150	130
28	79	e58	e45	e42	e50	92	1380	561	268	119	150	124
29	78	e60	e47	e44	e50	100	958	503	308	121	128	122
30	78	e62	e50	e47	---	95	873	505	241	125	113	119
31	78	---	e50	e47	---	100	---	487	---	118	105	---
TOTAL	3070	2073	1656	1397	1452	2423	14155	44364	9266	5135	3085	4015
MEAN	99.0	69.1	53.4	45.1	50.1	78.2	472	1431	309	166	99.5	134
MAX	190	82	61	53	58	134	1380	2040	478	242	150	224
MIN	76	58	44	37	44	50	122	487	148	117	73	95
AC-FT	6090	4110	3280	2770	2880	4810	28080	88000	18380	10190	6120	7960

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1896 - 1996, BY WATER YEAR (WY)

MEAN	133	83.8	58.6	52.2	56.6	125	750	1738	1381	415	234	180
MAX	1247	453	199	151	140	436	1955	3625	3470	1490	637	1354
(WY)	1942	1942	1987	1987	1987	1989	1942	1922	1957	1957	1957	1927
MIN	26.0	20.0	19.8	19.3	20.0	25.0	158	235	108	55.4	29.0	33.5
(WY)	1902	1902	1990	1990	1902	1899	1977	1977	1934	1934	1900	1899

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1896 - 1996
ANNUAL TOTAL	225900	92091	
ANNUAL MEAN	619	252	435
HIGHEST ANNUAL MEAN			790
LOWEST ANNUAL MEAN			87.0
HIGHEST DAILY MEAN	4210	Jun 15	a 2040 May 16
LOWEST DAILY MEAN	39	Jan 19	e 37 Jan 26
ANNUAL SEVEN-DAY MINIMUM	42	Jan 18	41 Jan 22
INSTANTANEOUS PEAK FLOW			2310 May 17
INSTANTANEOUS PEAK STAGE			4.88 May 17
ANNUAL RUNOFF (AC-FT)	448100	182700	6950 May 5 1922
10 PERCENT EXCEEDS	2130	504	8.0 Aug 16 1896
50 PERCENT EXCEEDS	196	96	12 Aug 10 1896
90 PERCENT EXCEEDS	47	47	b 10000 Oct 5 1911
			10.20 Oct 5 1911
			315200
			1400
			120
			40

e-Estimated.

a-Also occurred May 17.

b-Site and datum then in use, from rating curve extended above 2800 ft<sup>3</sup>/s.

## DOLORES RIVER BASIN

## 09166950 LOST CANYON CREEK NEAR DOLORES, CO

LOCATION.--Lat 37°26'46", long 108°28'07", in SE<sup>1/4</sup>SE<sup>1/4</sup> sec.23, T.37N., R.15W., Montezuma County, Hydrologic Unit 14030002, on right bank 2.5 mi southeast of Dolores and 3.0 mi upstream from mouth.

DRAINAGE AREA.--71.3 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1984 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 7,030 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Several small storage reservoirs and diversions for irrigation of about 4,700 acres in the San Juan River basin and one diversion for irrigation of about 10 acres in Lost Canyon in the Dolores River basin. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	2.7	1.8	e.90	e1.6	e2.5	2.7	13	.21	.11	.00	.00
2	.02	3.5	1.8	1.3	e1.8	e2.6	3.0	24	.28	.07	.00	.00
3	.01	2.9	1.8	e1.5	e2.0	e2.9	3.1	30	.09	.04	.00	.00
4	.00	2.3	2.0	e1.6	e1.5	3.2	2.7	31	.05	.03	.00	.00
5	.01	1.8	2.0	e1.7	e1.7	3.5	3.1	32	.03	.02	.00	.00
6	.01	1.5	1.9	e1.7	e1.9	3.9	3.4	29	.04	.01	.00	.00
7	.01	1.8	e1.9	e1.6	e2.1	4.1	3.5	14	.03	.02	.00	.00
8	.07	2.0	e2.0	e1.6	e2.3	4.0	4.0	9.1	.07	.02	.00	.00
9	.79	2.0	1.8	e1.6	e2.3	4.3	11	6.7	.04	.03	.00	.00
10	.41	2.4	1.9	e1.6	e2.2	4.6	18	3.4	.01	.02	.00	.00
11	.32	2.7	1.9	e1.6	e2.0	5.0	11	2.5	.02	.01	.00	.00
12	.32	2.0	e1.9	e1.6	e2.0	5.7	9.0	2.1	.07	.01	.00	.00
13	.28	2.2	e1.9	e1.5	e1.8	5.4	8.4	1.8	.04	.03	.00	.00
14	.28	2.4	e1.9	e1.5	e1.7	5.0	4.1	1.9	.09	.05	.00	.03
15	.27	2.2	e1.9	e1.5	e1.7	4.4	3.4	1.5	.09	.08	.00	.00
16	.26	2.2	e1.8	e1.5	e1.6	4.4	3.3	1.3	.06	.08	.00	.00
17	.33	2.2	e1.8	e1.5	e1.6	4.6	4.0	1.1	.04	.10	.00	.00
18	1.2	2.1	e1.7	e1.5	e1.6	4.2	3.4	.96	.02	.06	.00	.00
19	1.5	1.9	e1.6	e1.4	e1.5	4.1	2.9	.75	.01	.03	.00	.00
20	1.5	1.7	e1.4	e1.4	e1.5	3.4	2.6	.64	.01	.01	.00	.00
21	1.7	1.8	e1.4	e1.5	e1.7	4.0	2.4	.68	.04	.00	.00	.00
22	2.0	1.8	1.3	e1.5	e2.0	4.6	2.1	.63	.04	.00	.00	.00
23	1.7	1.9	1.2	e1.4	e1.9	4.1	2.0	.49	.06	.00	.00	.00
24	2.0	1.8	.97	e1.4	e1.7	3.5	13	.51	.05	.00	.00	.00
25	1.9	1.6	1.1	e1.4	e1.6	2.9	43	.74	.04	.00	.00	.00
26	1.8	e1.6	e1.1	e1.3	e1.6	3.1	71	.90	.05	.00	.00	.00
27	2.1	e1.5	.53	e1.2	e1.7	3.0	77	1.2	.28	.00	.00	.00
28	1.9	1.4	.41	e1.2	e2.0	2.9	81	.92	.20	.00	.00	.00
29	2.1	1.3	.22	e1.4	e2.4	3.2	21	.54	.15	.00	.00	.00
30	2.0	1.6	.38	e1.4	--	2.9	6.6	.35	.12	.00	.00	.00
31	2.1	--	e.70	e1.5	--	2.9	--	.21	--	.00	.00	--
TOTAL	28.93	60.8	46.01	45.30	53.0	118.9	425.7	213.92	2.33	0.83	0.00	0.03
MEAN	.93	2.03	1.48	1.46	1.83	3.84	14.2	6.90	.078	.027	.000	.001
MAX	2.1	3.5	2.0	1.7	2.4	5.7	81	32	.28	.11	.00	.03
MIN	.00	1.3	.22	.90	1.5	2.5	2.0	.21	.01	.00	.00	.00
AC-FT	57	121	91	90	105	236	844	424	4.6	1.6	.00	.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1996, BY WATER YEAR (WY)

MEAN	2.33	5.32	2.17	1.29	1.99	34.3	126	114	12.4	.25	.29	1.03
MAX	17.7	45.2	14.8	5.00	5.11	74.5	265	293	91.2	.87	1.62	5.16
(WY)	1987	1987	1987	1987	1987	1995	1987	1993	1995	1992	1988	1988
MIN	.000	.000	.000	.000	.000	.87	.86	3.32	.005	.003	.000	.000
(WY)	1990	1990	1990	1990	1990	1990	1990	1990	1990	1989	1990	1984

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1984 - 1996
ANNUAL TOTAL	14897.22	995.75	
ANNUAL MEAN	40.8	2.72	24.8
HIGHEST ANNUAL MEAN			49.9
LOWEST ANNUAL MEAN			.43
HIGHEST DAILY MEAN	365	May 16	1993
LOWEST DAILY MEAN	a.00	Jan 1	1990
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 21	
INSTANTANEOUS PEAK FLOW			
INSTANTANEOUS PEAK STAGE			
ANNUAL RUNOFF (AC-FT)	29550	1980	17950
10 PERCENT EXCEEDS	160	4.0	85
50 PERCENT EXCEEDS	1.7	1.5	.90
90 PERCENT EXCEEDS	.08	.00	.00

e-Estimated.

a-No flow many days each year.

## 09169500 DOLORES RIVER AT BEDROCK, CO

LOCATION.--Lat  $38^{\circ}18'37''$ , long  $108^{\circ}53'05''$ , in NW $^{1/4}$ SW $^{1/4}$  sec.20, T.47 N., R.18 W., Montrose County, Hydrologic Unit 14030002, on right bank at upstream side of bridge, 0.4 mi southeast of Bedrock, and 3.1 mi upstream from East Paradox Creek.

DRAINAGE AREA.--2,024 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1917 to September 1922 (monthly discharge only for some periods, published in WSP 1313), August 1971 to current year. Statistical summary computed for 1985 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 4,940 ft above sea level, from topographic map. Prior to Aug. 1, 1971, nonrecording gage at different datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 5,000 acres upstream from station, and about 74,760 acres in the San Juan River basin. Flow regulated since Mar. 19, 1984, by McPhee Reservoir, capacity 381,000 acre-ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 6, 1970, reached a stage of 7.15 ft, present datum, from floodmarks (discharge not determined).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	111	58	49	e48	e43	45	47	75	49	62	63	55
2	90	59	50	e44	e42	47	48	67	50	57	63	55
3	80	63	51	e44	e40	46	46	64	50	59	70	55
4	77	63	53	e44	e40	45	45	71	49	57	61	57
5	66	52	52	e47	e38	45	47	83	47	63	60	58
6	50	48	52	e47	e44	47	49	88	47	87	60	102
7	45	47	53	e46	e44	46	52	94	51	55	58	76
8	44	46	53	e44	e42	48	52	97	56	54	56	60
9	43	46	53	e43	e42	48	52	95	57	56	56	52
10	52	46	51	e41	e43	48	52	88	56	67	56	48
11	53	47	50	e40	e45	47	53	89	56	72	56	46
12	53	48	51	e40	e45	47	54	86	56	65	56	75
13	53	50	51	e40	e45	47	59	82	56	56	56	120
14	53	50	52	e40	e45	49	63	80	57	60	54	233
15	54	48	50	e40	e45	51	62	76	59	63	53	99
16	54	48	51	e41	e46	53	61	75	61	70	53	121
17	56	48	51	e44	e47	52	56	71	60	71	53	75
18	56	48	50	e43	e48	50	55	69	56	93	54	114
19	56	48	51	e40	e48	49	58	65	54	73	61	155
20	56	48	51	e40	e47	49	58	62	54	69	57	107
21	56	48	50	e40	e53	49	56	58	57	62	55	69
22	55	48	46	e40	e40	54	48	55	56	57	60	55
23	54	48	e45	e40	e53	46	54	55	56	59	55	52
24	56	49	e40	e38	54	47	52	54	53	58	57	50
25	56	49	e36	e37	59	47	52	56	51	57	60	48
26	57	49	e44	e37	54	51	51	59	50	58	66	46
27	58	49	e45	e37	49	51	51	60	60	59	72	46
28	58	49	e42	e37	48	48	57	58	71	61	109	47
29	59	50	e42	e42	47	46	73	55	66	66	67	47
30	58	48	e42	e42	---	46	80	53	69	72	58	47
31	59	---	e45	e43	---	45	---	51	---	70	56	---
TOTAL	1828	1498	1502	1289	1350	1483	1650	2192	1671	1991	1867	2270
MEAN	59.0	49.9	48.5	41.6	46.6	47.8	55.0	70.7	55.7	64.2	60.2	75.7
MAX	111	63	53	48	59	53	80	97	71	93	109	233
MIN	43	46	36	37	38	45	45	51	47	54	53	46
AC-FT	3630	2970	2980	2560	2680	2940	3270	4350	3310	3950	3700	4500

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1996, BY WATER YEAR (WY)

MEAN	89.9	97.0	76.3	74.2	86.2	273	980	1301	756	170	95.5	86.9
MAX	257	399	254	198	181	774	2551	3243	1794	626	242	171
(WY)	1987	1987	1987	1985	1987	1985	1993	1993	1995	1995	1987	1986
MIN	32.7	34.3	29.7	31.6	45.4	45.2	27.6	29.8	16.4	48.0	43.8	51.1
(WY)	1992	1991	1991	1991	1990	1990	1990	1990	1990	1990	1990	1991

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1985 - 1996
ANNUAL TOTAL	191371	20591	
ANNUAL MEAN	524	56.3	
HIGHEST ANNUAL MEAN			a 341
LOWEST ANNUAL MEAN			724
HIGHEST DAILY MEAN	3110	Jun 22	1993
LOWEST DAILY MEAN	e 36	Dec 25	53.5
ANNUAL SEVEN-DAY MINIMUM	42	Dec 24	1990
INSTANTANEOUS PEAK FLOW		38 Jan 22	1986
INSTANTANEOUS PEAK STAGE		636 Sep 14	May 5 1986
ANNUAL RUNOFF (AC-FT)	379600	3.40 Sep 14	c 5230 May 5 1986
10 PERCENT EXCEEDS	1840	40840	9.12 Sep 14
50 PERCENT EXCEEDS	97	72	246900 May 5 1986
90 PERCENT EXCEEDS	47	53	1170
		44	79
			39

e-Estimated.

a-Average discharge for 17 years (water years 1918-22, 1972-83), 497 ft<sup>3</sup>/s; 360100 acre-ft/yr, prior to completion of McPhee Reservoir.

b-Minimum daily discharge for period of record, no flow, Sep 13, 1974, Aug 15-18, 1978.

c-Maximum discharge and stage for period of record, 9280 ft<sup>3</sup>/s, Apr 30, 1973, gage height, 12.09 ft, from floodmarks.

## DOLORES RIVER BASIN

**09169500 DOLORES RIVER AT BEDROCK, CO--Continued****WATER-QUALITY RECORDS**

PERIOD OF RECORD.--November 1979 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1979 to current year.

WATER TEMPERATURE: November 1979 to current year.

INSTRUMENTATION.--Water-quality monitor since November 1979.

REMARKS.--Unpublished daily maximum and minimum specific conductance and water temperature data are available in the district office. Specific conductance record is good. Water temperature record is good.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 6,970 microsiemens Aug. 14, 1987; minimum, 140 microsiemens May 25, 1983.

WATER TEMPERATURE: Maximum, 33.5°C Aug. 7, 1981; minimum, -0.5°C Dec. 3-8, 1982.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 2,660 microsiemens Sep. 1; minimum recorded, 223 microsiemens Sep. 13.

WATER TEMPERATURE: Maximum recorded, 28.9°C July 4; minimum recorded, -0.1°C many days during winter months.

**WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996**

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
OCT 11...	1010	54	639	8.4	10.3	170	48	13	67	2
DEC 13...	1210	51	970	8.2	4.0	260	64	24	100	3
JAN 24...	1255	35	989	8.3	0.0	190	51	15	120	4
FEB 28...	1030	46	894	8.4	1.0	210	52	19	98	3
APR 16...	1005	63	870	8.4	11.0	210	56	17	92	3
MAY 07...	1200	96	907	8.4	17.0	270	68	24	84	2
30...	1510	53	898	8.5	18.7	240	60	22	91	3
JUN 19...	1405	55	578	8.2	23.0	150	42	10	54	2
JUL 11...	0940	56	796	8.1	23.0	120	34	9.6	100	4
AUG 07...	1040	56	471	8.4	21.5	130	39	9.0	40	2
21...	1405	56	498	8.2	24.0	150	42	10	46	2
28...	1450	108	471	8.1	25.0	130	38	8.5	40	2

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB SOLVED (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SUM OF CONSTITUENTS, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
OCT 11...	3.6	120	78	98	0.1	2.9	383	0.52	55.6
DEC 13...	4.1	150	170	120	0.2	4.8	577	0.78	79.3
JAN 24...	4.8	135	59	200	0.1	4.4	535	0.73	51.2
FEB 28...	4.1	133	120	130	0.1	3.1	506	0.69	62.7
APR 16...	4.3	143	100	130	0.2	3.1	488	0.66	82.9
MAY 07...	4.2	146	190	86	0.2	5.2	549	0.75	143
30...	4.0	131	170	98	0.2	3.2	527	0.72	75.4
JUN 19...	3.5	117	38	83	0.2	1.8	303	0.41	45.2
JUL 11...	7.6	121	49	150	0.2	4.8	428	0.58	64.7
AUG 07...	2.9	112	31	59	0.1	1.7	250	0.34	37.8
21...	3.0	111	31	72	0.1	1.6	272	0.37	41.0
28...	3.1	111	32	56	0.1	2.4	247	0.34	71.9

## DOLORES RIVER BASIN

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## 09169500 DOLORES RIVER AT BEDROCK, CO--Continued

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	441	381	422	636	626	631	800	722	760	1040	925	985
2	388	348	366	636	613	627	818	775	798	1040	947	1010
3	589	388	438	627	606	614	815	764	784	992	918	957
4	1510	589	894	606	584	593	819	763	794	955	885	920
5	1500	947	1110	604	595	600	875	795	852	945	892	909
6	997	927	947	633	602	619	864	797	827	936	889	909
7	1010	907	976	649	631	641	864	804	827	958	870	904
8	907	790	841	650	641	645	821	788	812	1010	923	951
9	797	726	776	668	647	653	846	782	815	1010	903	945
10	741	711	730	684	668	676	1040	816	948	977	871	920
11	727	698	714	707	678	682	1000	942	976	954	873	899
12	718	685	697	799	707	763	992	931	955	977	873	925
13	690	658	675	719	618	650	1020	948	981	938	862	901
14	768	660	698	637	613	624	999	968	985	1010	882	947
15	768	692	721	658	635	648	984	958	970	999	891	940
16	692	664	676	681	657	671	977	941	967	983	871	925
17	664	642	656	683	677	681	941	867	904	880	819	846
18	663	643	654	690	678	684	867	807	831	1000	819	885
19	657	637	647	705	687	694	835	779	819	985	757	874
20	646	625	637	723	700	711	813	779	790	824	752	796
21	648	621	636	715	703	708	839	782	816	834	783	804
22	651	632	643	708	696	702	940	837	885	874	772	826
23	653	637	645	713	700	706	982	881	914	942	790	873
24	643	626	635	708	699	704	1010	906	971	972	804	886
25	643	632	637	709	696	702	1010	956	985	911	808	855
26	641	634	638	715	697	706	975	901	942	1010	792	883
27	642	634	637	719	697	708	1020	937	981	1030	912	975
28	636	623	631	720	701	711	1070	963	1040	1030	881	942
29	643	626	635	710	677	694	1060	950	1000	998	783	903
30	637	632	635	761	677	727	979	917	948	862	788	831
31	634	627	631	---	---	---	998	862	915	827	795	813
MONTH	1510	348	686	799	584	672	1070	722	897	1040	752	901
	FEBRUARY			MARCH			APRIL			MAY		
1	887	814	850	948	862	907	817	567	674	1060	977	1030
2	851	796	824	1210	914	983	706	628	668	1130	976	1050
3	873	786	827	1490	1210	1410	698	681	687	1200	1070	1150
4	894	775	832	1370	1170	1270	697	681	689	1070	980	1040
5	953	796	859	1170	1090	1120	712	692	700	1070	964	1020
6	866	799	829	1110	1070	1090	700	677	690	972	891	929
7	834	738	801	1140	1070	1110	719	689	701	940	887	910
8	790	722	763	1130	1070	1110	748	707	726	907	790	850
9	823	739	775	1070	988	1030	735	687	703	803	751	774
10	804	711	759	1040	992	1020	698	650	667	850	740	771
11	789	706	758	1020	990	1010	672	634	649	852	770	796
12	773	703	729	1000	961	985	646	628	634	786	738	758
13	762	698	733	972	928	945	641	609	619	750	726	739
14	763	694	726	941	912	929	727	612	659	765	729	753
15	756	701	726	913	895	905	770	691	729	773	738	761
16	768	719	741	916	879	891	838	766	810	767	736	754
17	803	738	764	918	894	907	850	821	838	805	738	776
18	835	752	790	946	914	928	954	791	849	803	761	782
19	835	775	801	974	946	958	1060	954	1000	820	765	789
20	857	819	839	983	933	955	1090	1020	1070	835	796	814
21	850	796	826	1040	962	996	1030	989	1010	849	813	830
22	937	796	846	962	874	901	1020	991	1000	863	849	856
23	934	858	879	874	843	855	1020	981	995	881	843	864
24	877	827	857	844	803	825	1030	995	1010	893	829	864
25	894	826	864	818	794	804	1070	1030	1050	891	840	865
26	948	871	915	805	769	793	1050	1030	1040	967	874	901
27	957	900	933	780	770	775	1040	1010	1030	965	885	902
28	917	870	888	777	762	770	1030	978	1000	898	867	881
29	927	875	903	764	728	747	1030	985	1010	909	877	896
30	---	---	---	740	690	718	1040	1010	1030	932	882	904
31	---	---	---	698	679	688	---	---	---	932	875	903
MONTH	957	694	815	1490	679	946	1090	567	831	1200	726	868

## DOLORES RIVER BASIN

## 09169500 DOLORES RIVER AT BEDROCK, CO--Continued

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	994	910	936	573	534	553	517	472	501	2660	1240	1660
2	1030	979	1010	593	560	574	528	489	505	2660	1400	2090
3	1040	988	1020	587	555	573	526	401	490	1400	743	980
4	1020	884	941	593	545	569	512	378	443	743	634	674
5	958	851	908	588	556	571	488	425	443	634	578	603
6	954	837	896	670	456	582	473	429	454	578	285	521
7	910	794	859	809	594	691	501	460	483	620	368	530
8	883	778	833	743	602	647	509	472	491	522	392	487
9	834	756	785	749	652	730	521	479	499	557	450	517
10	775	742	753	652	569	616	546	512	534	590	550	569
11	745	697	715	1070	519	707	534	506	522	612	561	587
12	715	663	675	526	497	509	530	499	515	723	551	591
13	673	623	640	589	498	552	518	488	505	958	223	663
14	643	612	625	562	530	551	522	490	507	674	361	438
15	629	597	613	539	517	527	527	499	513	489	392	441
16	642	602	618	1750	539	1300	530	497	513	626	410	467
17	634	579	594	1110	605	799	533	505	519	1350	626	1130
18	603	564	584	605	410	541	531	499	515	1280	726	935
19	606	564	585	953	532	624	532	502	520	1380	759	1120
20	619	558	586	566	488	515	518	498	511	759	519	600
21	625	586	605	513	485	500	524	482	499	546	515	524
22	719	591	657	511	480	497	530	482	511	651	546	616
23	630	584	606	518	485	504	527	499	515	718	626	670
24	599	534	557	565	488	527	545	492	520	1390	717	963
25	605	558	580	551	517	528	549	508	529	1470	1260	1410
26	609	553	580	524	493	511	515	485	505	1260	933	1090
27	640	545	588	525	495	513	518	478	500	933	738	798
28	735	609	671	518	479	501	784	433	533	738	667	710
29	687	551	582	525	484	506	495	404	463	667	623	639
30	568	534	554	551	473	513	526	473	505	652	592	615
31	---	---	---	490	472	484	1470	487	769	---	---	---
MONTH	1040	534	705	1750	410	591	1470	378	511	2660	223	788

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	16.1	12.3	14.2	11.2	9.2	10.1	3.2	.6	1.8	.5	.0	.1
2	16.2	12.1	14.0	10.1	7.2	8.6	3.0	.4	1.8	.5	.0	.1
3	15.9	11.9	13.8	7.5	4.2	6.0	2.9	.7	1.9	.5	.0	.1
4	14.2	12.0	12.8	7.0	3.6	5.3	4.0	1.3	2.6	.8	.0	.2
5	13.7	10.7	12.0	6.7	3.1	5.0	4.9	2.1	3.4	.4	.0	.1
6	12.8	9.0	11.0	6.9	4.3	5.5	4.7	2.2	3.3	.7	.0	.1
7	13.0	9.0	11.0	8.4	5.1	6.7	3.0	1.9	2.2	.8	.0	.2
8	13.4	9.5	11.4	8.0	4.8	6.5	3.9	2.2	2.8	.7	.0	.2
9	13.3	9.9	11.5	7.2	5.1	6.3	3.4	1.1	2.3	.7	.0	.2
10	14.0	9.8	11.9	7.5	5.4	6.5	3.2	.8	1.9	1.1	.0	.3
11	14.3	10.3	12.3	6.1	3.2	4.7	2.6	.7	1.7	.6	.0	.1
12	14.0	11.2	12.6	5.2	2.5	4.0	3.5	1.8	2.6	.8	.0	.2
13	14.3	10.6	12.3	6.5	3.1	4.8	4.9	3.4	4.1	.8	.0	.2
14	13.2	9.3	11.3	7.1	3.9	5.6	5.7	3.7	4.5	.8	.0	.2
15	13.4	9.1	11.3	7.1	4.0	5.6	3.7	2.7	.7	.0	.0	.2
16	12.9	9.5	11.3	6.6	3.9	5.4	2.3	1.5	1.9	.9	.0	.3
17	13.5	9.4	11.4	6.6	3.9	5.3	3.3	1.0	2.1	.6	.0	.3
18	13.1	9.4	11.4	6.1	3.4	4.9	1.9	.2	1.1	.8	.0	.2
19	13.2	9.5	11.3	6.0	3.0	4.6	1.1	.0	.3	.9	.0	.2
20	11.5	7.9	9.9	5.7	2.8	4.3	.9	.0	.2	1.0	-.1	.3
21	11.1	7.4	9.4	4.8	2.7	3.9	.5	.0	.1	.3	-.1	.0
22	10.8	8.4	9.6	5.1	2.8	4.0	1.0	.0	.2	.3	-.1	-.1
23	9.4	6.2	8.0	6.1	3.1	4.5	.7	.0	.2	.6	-.1	.0
24	9.4	5.6	7.5	5.0	2.5	3.8	.7	.0	.1	.5	-.1	.0
25	9.3	5.5	7.4	4.7	2.1	3.4	.7	.0	.1	.3	-.1	.0
26	10.1	6.2	8.0	4.5	2.9	3.7	.7	.0	.1	.3	-.1	.0
27	10.8	7.0	8.9	3.5	1.8	2.6	.7	.0	.1	.3	-.1	.0
28	9.9	7.0	8.5	1.9	.4	1.3	.6	.0	.1	.4	-.1	.0
29	10.4	7.8	9.1	2.9	.2	1.5	.7	.0	.1	.6	-.1	.1
30	11.0	8.1	9.7	2.9	.6	1.8	.3	.0	.1	.4	-.1	.1
31	11.2	8.7	10.1	---	---	---	.4	.0	.1	.4	.0	.1
MONTH	16.2	5.5	10.8	11.2	.2	4.9	5.7	.0	1.5	1.1	-.1	.1

## DOLORES RIVER BASIN

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## 09169500 DOLORES RIVER AT BEDROCK, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	.6	-.1	.2	5.1	.6	2.9	14.5	9.9	12.2	19.0	13.4	16.0
2	1.6	-.1	.4	5.9	1.7	3.8	12.4	10.4	11.5	18.4	14.1	16.3
3	.7	-.1	.1	6.6	2.3	4.6	14.3	9.1	11.7	18.6	14.1	16.2
4	1.0	-.1	.2	7.4	4.8	6.1	13.8	9.7	11.8	19.9	14.1	16.9
5	1.5	-.1	.6	8.8	5.5	7.0	14.8	9.6	12.1	20.4	14.7	17.4
6	3.0	.1	1.4	8.3	6.0	7.0	15.3	9.7	12.6	20.8	15.1	17.8
7	3.1	.3	1.6	7.6	4.1	6.0	15.4	11.0	13.4	19.6	15.8	17.6
8	3.8	.7	2.1	9.1	4.5	6.8	17.4	11.5	14.5	20.4	15.1	17.5
9	3.7	.4	2.2	10.2	5.5	7.9	17.4	12.9	15.5	17.7	15.1	16.5
10	4.0	1.2	2.6	10.2	6.5	8.4	16.5	13.2	14.7	19.5	13.3	16.1
11	3.3	1.8	2.7	10.9	6.6	8.8	14.5	12.2	13.1	21.0	14.8	17.7
12	4.5	1.3	2.7	11.2	8.0	9.8	13.4	10.0	11.9	22.3	16.8	19.4
13	4.4	1.0	2.7	10.5	8.5	9.5	12.2	9.7	10.8	22.3	17.0	19.4
14	4.5	1.0	2.8	9.5	6.7	8.3	12.7	7.8	10.0	22.3	17.5	19.6
15	5.0	1.5	3.2	11.4	6.4	8.8	14.6	8.2	11.3	22.6	17.4	19.8
16	4.7	1.9	3.4	11.5	6.7	9.2	14.6	10.2	12.5	21.6	18.0	19.7
17	5.6	2.1	4.0	10.0	7.6	8.8	14.0	9.7	11.9	22.3	16.7	19.3
18	7.5	3.7	5.5	10.4	6.2	8.3	12.3	10.0	11.1	21.0	17.6	19.2
19	5.9	4.1	4.7	10.6	5.7	8.2	13.7	7.7	10.5	21.7	16.4	18.7
20	7.2	4.5	5.9	11.4	6.1	8.8	11.8	8.8	10.2	21.9	16.3	19.0
21	7.1	6.2	6.4	12.4	7.4	10.1	13.7	7.5	10.6	22.3	16.7	19.5
22	7.3	5.2	6.2	13.2	9.2	11.4	14.8	8.5	11.7	21.5	17.0	19.1
23	7.0	3.2	5.0	11.2	8.4	9.5	16.4	10.0	13.3	18.7	16.2	17.3
24	6.1	2.7	4.5	8.9	6.7	7.7	17.2	12.4	14.9	16.5	14.4	15.1
25	6.0	3.0	4.5	8.7	5.4	7.2	19.2	14.0	16.3	17.2	12.9	14.9
26	4.8	3.0	4.1	11.2	6.0	8.6	18.9	13.8	16.5	16.9	13.0	15.0
27	3.9	1.0	2.6	10.9	7.1	9.3	19.3	14.7	16.9	18.9	14.1	16.4
28	3.9	.3	2.3	12.3	7.7	10.0	15.7	10.8	12.8	20.1	15.4	17.6
29	5.1	1.6	3.2	11.9	8.3	10.1	15.3	8.9	12.0	21.1	15.8	18.4
30	---	---	---	13.3	8.3	10.8	17.7	10.7	14.0	19.5	16.9	18.1
31	---	---	---	14.1	9.0	11.6	---	---	---	20.4	15.0	17.8
MONTH	7.5	-.1	3.0	14.1	.6	8.2	19.3	7.5	12.7	22.6	12.9	17.7
	JUNE			JULY			AUGUST			SEPTEMBER		
1	22.9	16.9	19.9	25.8	20.4	23.0	25.5	21.6	23.7	23.3	19.0	21.2
2	23.2	17.3	20.3	27.1	21.0	23.9	24.4	21.8	23.3	23.5	19.4	21.4
3	24.0	17.9	20.9	28.1	22.2	25.1	25.1	21.8	23.2	23.6	18.8	21.3
4	23.8	18.6	21.4	28.9	23.3	26.0	24.7	20.6	22.5	24.1	19.6	21.7
5	24.9	19.3	22.2	27.4	23.6	25.2	24.3	18.8	21.5	22.2	20.0	21.1
6	25.4	20.3	22.9	28.3	21.2	25.0	25.1	19.2	22.0	20.6	17.3	19.4
7	25.9	20.1	23.0	26.9	23.7	25.5	26.0	20.4	23.2	22.4	18.0	19.9
8	24.4	20.2	22.5	26.3	23.3	24.8	25.2	20.8	23.0	22.5	17.4	19.7
9	24.3	19.8	22.2	26.3	22.8	24.5	23.9	20.3	22.3	22.2	17.7	20.0
10	26.0	19.7	22.7	28.7	22.6	25.4	26.0	19.9	22.7	22.5	17.9	20.2
11	24.6	20.6	22.6	27.6	22.6	25.0	26.6	20.2	23.3	21.6	19.3	20.5
12	22.9	20.3	21.7	27.5	22.4	24.8	26.5	20.5	23.5	21.6	18.4	19.8
13	23.0	19.7	21.5	27.3	22.7	24.8	26.9	20.7	23.8	21.5	10.6	18.2
14	21.6	19.7	20.7	27.6	21.7	24.6	26.0	21.4	23.7	19.1	13.3	15.5
15	23.2	18.6	20.6	26.4	22.9	24.6	26.0	21.6	23.9	19.6	14.4	16.7
16	23.2	19.0	21.3	27.7	22.0	24.5	26.4	21.2	23.7	18.2	15.7	17.1
17	24.1	19.2	21.6	26.2	23.1	24.6	24.4	20.7	22.6	16.4	13.7	15.0
18	24.5	18.6	21.5	26.9	20.9	23.9	23.5	20.4	22.0	14.4	10.4	11.7
19	24.6	18.8	21.7	26.0	21.7	23.9	25.6	20.2	22.6	13.6	9.8	11.6
20	23.1	19.0	21.4	27.1	21.2	23.9	24.8	21.0	22.8	16.0	11.5	13.4
21	24.0	19.9	21.8	27.6	21.3	24.3	25.0	20.5	22.7	17.5	12.1	14.5
22	24.1	19.7	21.9	27.1	21.5	24.3	25.4	20.5	22.8	18.4	13.5	15.9
23	24.2	18.6	21.3	27.3	21.4	24.3	26.1	20.8	23.2	19.9	15.4	17.5
24	23.7	18.8	21.3	27.2	21.6	24.2	25.9	21.7	23.5	19.6	15.4	17.5
25	23.1	18.4	20.9	25.7	21.4	23.4	25.4	21.8	23.3	18.2	15.5	17.0
26	21.6	19.2	20.6	26.3	21.7	23.9	25.4	21.4	23.2	16.7	13.3	15.0
27	22.3	18.6	20.2	25.9	21.2	23.7	26.1	21.5	23.7	14.6	10.2	12.4
28	22.7	19.0	20.8	25.1	22.3	23.8	26.5	21.6	23.9	15.0	9.9	12.4
29	25.2	18.4	21.6	26.8	22.1	24.2	26.0	21.0	23.2	16.3	11.0	13.6
30	24.0	20.7	22.5	27.7	22.0	24.6	25.1	20.1	22.6	16.7	12.0	14.4
31	---	---	---	26.9	22.2	24.5	24.2	19.5	21.9	---	---	---
MONTH	26.0	16.9	21.5	28.9	20.4	24.5	26.9	18.8	23.0	24.1	9.8	17.2

## DOLORES RIVER BASIN

## 09170800 WEST PARADOX CREEK ABOVE BEDROCK, CO

## WATER-QUALITY RECORDS

LOCATION.--Lat 38°19'54", long 108°53'59", in NE<sup>1/4</sup>NW<sup>1/4</sup> sec.18, T.47 N., R.18 W., Montrose County. Site is 1,000 ft downstream from former surface water station, 1.3 mi northwest of Bedrock, and 2.6 mi upstream from mouth.

DRAINAGE AREA.-- 53.3 mi<sup>2</sup>.

PERIOD OF RECORD.--Chemical analyses: August 1987 to current year.

REMARKS.--Natural flow affected by water imported from Rock Creek through Buckeye Reservoir. Diversion for irrigation of about 2,500 acres.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS TOTAL (MG/L AS CACO <sub>3</sub> )	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO
OCT 11...	0805	1490	8.1	7.5	750	140	98	45	0.7
DEC 13...	0945	1470	8.2	6.0	760	140	100	48	0.8
JAN 24...	1115	1360	8.2	0.0	720	140	91	39	0.6
FEB 28...	0830	1220	8.2	1.5	640	120	82	36	0.6
APR 16...	0740	1370	8.2	7.0	680	130	86	40	0.7
MAY 07...	0945	1290	8.2	12.0	610	120	76	36	0.6
30...	1330	1210	8.4	17.0	610	120	76	37	0.7
JUN 19...	1240	1050	8.3	19.5	530	110	63	29	0.5
JUL 11...	1210	1900	8.2	21.5	970	190	120	67	0.9
AUG 07...	0910	1160	8.3	15.5	570	120	66	32	0.6
21...	0655	1000	8.1	17.0	500	110	55	28	0.5
28...	1335	896	7.9	20.0	420	89	49	26	0.5

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY CACO <sub>3</sub> )	SULFATE AS SO <sub>4</sub> )	CHLO-ride, DIS-SOLVED (MG/L AS CL)	FLUO-ride, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO <sub>2</sub> )	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (TONS PER AC-FT)	
OCT 11...	3.9	257	570	41	0.4	11	1060	1.45
DEC 13...	4.2	257	550	42	0.4	12	1050	1.43
JAN 24...	3.7	247	500	35	0.3	12	969	1.32
FEB 28...	3.2	238	460	31	0.4	12	887	1.21
APR 16...	3.1	251	500	36	0.4	9.8	956	1.30
MAY 07...	3.4	234	460	34	0.4	8.9	879	1.20
30...	3.2	216	420	31	0.4	8.3	825	1.12
JUN 19...	2.8	195	340	25	0.4	8.5	696	0.95
JUL 11...	6.3	253	770	68	0.5	12	1390	1.88
AUG 07...	3.5	228	380	31	0.4	9.2	779	1.06
21...	3.3	223	290	27	0.3	11	658	0.90
28...	4.6	189	250	25	0.3	11	568	0.77

**09171100 DOLORES RIVER NEAR BEDROCK, CO**

LOCATION.--Lat 38°21'29", long 108°49'54", in SW<sup>1/4</sup>NW<sup>1/4</sup> sec.2, T.47 N., R.18 W., Montrose County, Hydrologic Unit 14030002, on right bank 2.5 mi downstream from West Paradox Creek and 4.3 mi northeast of Bedrock.

DRAINAGE AREA.--2,145 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--August 1971 to current year. Statistical summary computed for 1985 to current year.

REVISED RECORDS.--WDR CO-90-2: 1989.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 4,910 ft above sea level, from topographic map. Prior to Feb. 1, 1972, at site 400 ft upstream at datum 1.02 ft, higher.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 80,000 acres, of which about 74,760 acres are in the San Juan River basin. Flow regulated by McPhee Reservoir, capacity 381,000 acre-ft, since Mar. 19, 1984.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 6, 1970, reached a stage of 11.25 ft, site and datum in use prior to Feb. 1, 1972 (discharge, 5,710 ft<sup>3</sup>/s), by slope-area measurement at site 1,400 ft upstream.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	127	63	56	e56	e49	49	54	84	44	57	63	66
2	106	63	60	e53	e48	49	55	77	44	53	62	66
3	91	66	58	e52	e47	49	56	75	44	53	67	66
4	87	68	61	e53	e46	48	54	76	43	53	63	68
5	77	60	62	e54	e45	49	55	87	42	54	62	70
6	61	53	62	e56	e50	51	57	92	40	96	60	103
7	52	51	62	e55	e51	50	60	102	43	59	59	98
8	48	51	62	e54	e50	52	61	104	50	58	56	79
9	45	51	62	e51	e49	52	63	102	53	57	54	65
10	52	51	62	e49	e50	53	63	95	53	66	54	60
11	54	50	60	e48	e52	52	62	92	51	65	55	58
12	52	51	60	e47	e53	52	63	90	51	70	55	72
13	51	53	60	e46	e52	52	67	87	52	58	55	103
14	51	55	61	e46	e52	53	71	85	53	58	54	309
15	52	54	61	e47	53	56	72	79	55	61	52	109
16	53	54	61	e48	53	58	70	77	56	67	53	146
17	54	54	61	e52	53	58	65	73	56	68	52	91
18	53	54	64	e51	54	56	63	70	54	80	53	120
19	53	54	59	e47	54	55	66	68	51	78	57	179
20	54	54	59	e47	55	55	67	66	49	72	62	123
21	55	54	56	e46	60	54	66	62	51	65	55	88
22	56	54	62	e46	62	54	64	59	52	62	58	70
23	56	54	54	e46	60	52	64	56	52	60	60	66
24	57	54	e51	e44	59	52	63	55	49	61	64	62
25	57	54	e44	e41	64	53	62	55	46	60	67	60
26	58	54	e46	e44	60	56	62	55	44	60	76	58
27	60	54	e48	e44	56	57	60	57	52	60	79	57
28	61	56	e49	e47	54	56	61	57	60	60	110	58
29	61	56	e50	e48	52	54	72	55	60	63	87	59
30	62	57	e51	e49	--	53	80	51	60	68	71	59
31	63	--	e53	e49	--	53	--	46	--	69	69	--
TOTAL	1919	1657	1777	1516	1543	1643	1898	2289	1510	1971	1944	2688
MEAN	61.9	55.2	57.3	48.9	53.2	53.0	63.3	73.8	50.3	63.6	62.7	89.6
MAX	127	68	64	56	64	58	80	104	60	96	110	309
MIN	45	50	44	41	45	48	54	46	40	53	52	57
AC-FT	3810	3290	3520	3010	3060	3260	3760	4540	3000	3910	3860	5330

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1996, BY WATER YEAR (WY)

MEAN	97.8	106	81.9	82.3	98.1	286	1013	1302	761	178	102	95.3
MAX	269	430	262	208	207	811	2552	3219	1766	677	274	203
(WY)	1987	1987	1987	1985	1987	1985	1985	1993	1995	1995	1987	1986
MIN	33.3	38.8	33.1	34.5	48.2	46.6	27.3	30.4	16.0	44.9	44.7	53.0
(WY)	1992	1991	1991	1991	1991	1990	1990	1990	1990	1990	1990	1991

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1985 - 1996

ANNUAL TOTAL	190217	22355	a 351
ANNUAL MEAN	521	61.1	711
HIGHEST ANNUAL MEAN			55.3
LOWEST ANNUAL MEAN			1990
HIGHEST DAILY MEAN	3170	Jun 21	4550
LOWEST DAILY MEAN	40	Jan 1	b 7.1
ANNUAL SEVEN-DAY MINIMUM	45	Jan 19	10 Jun 16 1990
INSTANTANEOUS PEAK FLOW			c 5260 May 6 1986
INSTANTANEOUS PEAK STAGE			10.82 May 6 1986
ANNUAL RUNOFF (AC-FT)	377300	44340	254000
10 PERCENT EXCEEDS	1750	77	1200
50 PERCENT EXCEEDS	108	56	86
90 PERCENT EXCEEDS	52	48	42

e-Estimated.

a-Average discharge for 12 years (water years 1972-83), 502 ft<sup>3</sup>/s; 363700 acre-ft/yr, prior to completion of McPhee Dam.

b-Minimum daily discharge for period of record, 0.12 ft<sup>3</sup>/s, Jul 17-18, 1977.

c-Maximum discharge and stage for period of record, 9500 ft<sup>3</sup>/s, Apr 30, 1973, gage height, 12.88 ft, from floodmarks.

## DOLORES RIVER BASIN

**09171100 DOLORES RIVER NEAR BEDROCK, CO--Continued**  
**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--December 1987 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1987 to current year.

WATER TEMPERATURE: December 1987 to current year.

INSTRUMENTATION.--Water-quality monitor since December 1987.

REMARKS.--Interruptions in daily record are the result of severe probe fouling or instrument malfunctions. Unpublished daily maximum and minimum specific conductance data are available in the district office. Daily specific conductance record is fair except for the period Dec. 31 to Feb. 25, which is poor. Daily water temperature record is fair.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 57,700 microsiemens, June 22, 1990 (may have been higher June 19-22 when probe was out of water); minimum recorded, 256 microsiemens, June 23, 1995 (may have been lower during period of missing record Apr. 3-20, 1993).

WATER TEMPERATURE: Maximum, 33.3°C, July 1, 1990; minimum, -1.0°C, Dec. 23, 1995 (temperatures published as 0.0°C may have been lower during water years 1988-95).

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum 26,500 microsiemens, Dec. 23; minimum recorded, 690 microsiemens, Sept. 15.

WATER TEMPERATURE: Maximum, 32.0°C, July 3; minimum, -1.0°C, Dec. 23.

**WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996**

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
------	------	---	---	--------------------------------	-----------------------------	---	---	--	--	---

OCT 11...	1145	56	6670	8.2	10.5	350	75	40	1200	28
DEC 12...	1425	63	8600	8.3	4.5	540	110	64	1700	32
JAN 24...	0855	25	8530	8.1	-0.5	450	90	55	1600	33
FEB 28...	1355	55	7410	8.3	6.0	450	88	57	1400	29
APR 16...	1320	70	5070	8.5	15.0	330	73	35	880	21
MAY 06...	1515	95	3330	8.2	22.0	320	75	32	530	13
30...	0845	51	5200	8.2	15.5	360	77	41	950	22
JUN 19...	0915	51	3470	8.2	17.5	230	54	23	580	17
JUL 11...	1445	62	2670	8.2	28.5	200	49	18	450	14
AUG 07...	0715	59	1480	8.3	18.5	160	44	13	220	7
21...	0945	54	1820	8.3	19.5	170	44	14	280	9
28...	1135	145	1230	8.0	23.5	150	40	12	160	6

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, (MG/L AS SIO2)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
OCT 11...	58	130	160	2000	0.2	3.2	3610	4.92	543
DEC 12...	81	164	310	2600	0.2	4.7	4970	6.76	841
JAN 24...	75	161	200	2600	0.2	5.2	4720	6.42	321
FEB 28...	65	150	240	2200	0.2	3.8	4140	5.64	614
APR 16...	45	148	170	1500	0.2	2.6	2790	3.80	525
MAY 06...	31	144	220	860	0.2	5.5	1840	2.50	471
30...	46	138	240	1500	0.2	3.5	2940	4.00	406
JUN 19...	30	123	86	970	0.2	2.1	1820	2.47	250
JUL 11...	22	122	78	720	0.2	3.9	1410	1.92	237
AUG 07...	12	119	48	350	0.1	2.0	760	1.03	121
21...	15	115	51	470	0.1	1.3	944	1.28	138
28...	9.0	119	58	250	0.2	2.5	603	0.82	236

## DOLORES RIVER BASIN

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## 09171100 DOLORES RIVER NEAR BEDROCK, CO--Continued

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C.), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	2220	---	---	5560	5370	5490	7080	6960	7020	9520	7410	8800
2	3050	2220	2640	5460	4920	5260	7060	6990	7020	10400	7490	9190
3	3720	3050	3380	4920	4490	4740	7110	6720	7050	12100	8700	9850
4	3980	3710	3820	5000	4730	4830	7040	6570	6770	13000	8050	10200
5	5540	3980	4730	7360	4740	5810	7370	6880	7070	12100	7410	10400
6	8090	5540	6740	8120	7360	7790	7310	6890	7050	12200	7880	10300
7	8920	8090	8360	8020	7560	7770	7560	7010	7140	13500	8300	11000
8	9250	8340	8730	8390	7660	7890	7090	6790	6930	13500	8010	10300
9	10700	9250	9950	8540	8150	8310	7190	6850	7010	15700	7600	11000
10	10500	6730	7490	8450	7540	8030	8010	7110	7460	13700	7820	10200
11	7150	6730	6880	7820	7350	7540	8280	7900	8080	14400	6470	10400
12	7150	7010	7090	7990	7560	7720	8810	7530	8280	13500	6800	9050
13	7070	6420	6680	---	---	---	8980	7410	8160	12900	7290	10500
14	6810	6380	6530	---	---	---	9470	6980	8100	12600	7190	9840
15	6840	6420	6610	---	---	---	8330	7200	7830	14200	6840	10200
16	6840	6480	6650	---	---	---	8490	8320	8420	13400	7330	9670
17	6680	6140	6400	---	---	---	8330	7980	8130	12700	6880	8700
18	6620	6250	6390	---	---	---	8290	7610	8000	7940	5540	6630
19	6570	5860	6160	---	---	---	13800	7880	9430	10500	6600	8090
20	6470	5950	6120	---	---	---	19300	6080	9290	11000	6250	8190
21	6590	6210	6360	7260	6760	7040	23900	6570	10200	10900	6150	7690
22	6640	6060	6380	7350	7240	7300	14200	7970	9630	8350	5910	6680
23	6270	5820	6020	7400	7120	7310	26500	9770	12900	8660	6340	7240
24	6270	5980	6140	7410	7110	7300	17000	7220	12700	11100	6620	7980
25	6230	5750	5960	7350	7220	7310	16200	6930	10600	14300	6510	9790
26	6210	5880	6000	7450	7340	7390	15400	6390	10800	11400	7350	9640
27	6040	5560	5810	7470	7360	7400	13500	7900	10800	18500	7390	11700
28	5710	5410	5550	7470	7280	7380	11800	8520	10500	13000	5450	8800
29	5670	5420	5560	7350	6820	7120	11900	8350	10500	7600	6190	6880
30	5700	5380	5500	6970	6890	6930	10900	7900	9590	8290	6390	7580
31	5660	5450	5590	---	---	---	10200	8580	9520	8120	6710	7340
MONTH	10700	---	---	---	---	---	26500	6080	8770	18500	5450	9160
	FEBRUARY			MARCH			APRIL			MAY		
1	6710	5940	6320	9930	8260	9120	9330	8150	8640	---	---	---
2	7290	6180	6660	9840	7630	9200	9120	8080	8400	---	---	---
3	18700	5810	7910	10200	7680	8930	8890	7890	8260	---	---	---
4	17100	5460	8090	11000	8760	9750	9130	8110	8500	---	---	---
5	10000	5650	7140	10500	8220	9460	8890	7620	8160	---	---	---
6	7920	6070	6910	9590	8350	8620	8450	7200	7760	3480	3270	3380
7	8800	6260	7110	8860	7850	8190	8090	6780	7150	3410	2850	3180
8	9440	6330	7590	8720	8010	8350	7170	6450	6810	3240	2690	2990
9	8270	5810	6770	8480	7700	7990	7100	6410	6670	3060	2700	2910
10	8800	5300	6810	8530	7690	8000	7050	6590	6760	3100	2830	2960
11	7770	5850	6800	9020	8090	8470	7000	6230	6480	---	---	---
12	7940	6290	7020	9170	8470	8770	6300	5810	6030	---	---	---
13	8620	6500	7150	9100	8620	8800	6300	4960	5750	---	---	---
14	8220	6590	7380	8620	7970	8200	4960	4500	4700	---	---	---
15	8150	7610	7870	7970	7300	7670	5190	4700	4870	---	---	---
16	8610	7620	8030	7580	6980	7280	5810	4860	5190	---	---	---
17	8700	7540	8040	7490	7180	7280	6610	5660	5990	---	---	---
18	8700	7400	8000	8170	7440	7740	6310	5850	6070	---	---	---
19	8290	7250	7640	8580	7700	8060	6130	5430	5660	---	---	---
20	8230	7170	7550	9030	8150	8450	5910	5500	5730	---	---	---
21	7850	6110	6960	9080	8290	8580	6110	5640	5830	---	---	---
22	6750	6090	6360	10200	8710	9160	6350	5680	5970	---	---	---
23	6600	6330	6390	10400	9790	10100	---	---	---	---	---	---
24	6910	6600	6730	10200	8920	9380	---	---	---	---	---	---
25	6750	5800	6140	9220	8630	8840	---	---	---	---	---	---
26	7830	6300	7280	8760	7400	7920	---	---	---	---	---	---
27	8300	6780	7540	8230	7160	7510	7610	7100	7300	---	---	---
28	9040	7280	7980	9360	8010	8450	7570	5500	6490	---	---	---
29	9310	7690	8390	9410	9030	9170	5500	4090	4360	---	---	---
30	---	---	---	9270	8160	8610	---	---	---	---	---	---
31	---	---	---	9340	8280	8820	---	---	---	5730	5320	5510
MONTH	18700	5300	7260	11000	6980	8540	---	---	---	---	---	---

## DOLORES RIVER BASIN

## 09171100 DOLORES RIVER NEAR BEDROCK, CO--Continued

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE	JULY		JULY	AUGUST		JULY	AUGUST		SEPTEMBER	SEPTEMBER
1	5830	5500	5640	2460	2160	2280	---	---	---	2660	1980	2500
2	5720	5270	5450	2620	2450	2520	---	---	---	3660	2620	3340
3	5660	5240	5420	2600	2400	2500	---	---	---	3220	2070	2520
4	5800	5370	5530	2600	2390	2480	---	---	---	2070	1630	1760
5	5900	5550	5680	2630	2410	2530	---	---	---	1630	1390	1500
6	5850	5470	5650	2510	1200	1560	---	---	---	1480	742	1250
7	5710	4480	5090	2190	1650	1950	---	---	---	1490	730	1050
8	4600	3860	4020	2360	2180	2260	1600	1470	1520	1640	880	1230
9	3950	3490	3720	2800	2360	2470	1630	1540	1600	1850	1500	1620
10	3950	3620	3760	2420	1500	2100	1730	1550	1620	2180	1790	1970
11	3930	3580	3730	2800	1570	2280	1750	1610	1680	2230	2140	2180
12	3760	3470	3580	2170	1540	1820	1740	1620	1700	2230	1210	1810
13	3490	3340	3410	2420	2140	2290	1730	1520	1610	1680	975	1270
14	3420	3210	3310	2310	2070	2130	1900	1720	1780	1390	698	887
15	3390	3190	3280	---	---	---	2040	1830	1890	1060	690	842
16	3220	2910	3050	---	---	---	2010	1830	1920	1060	842	903
17	3190	2800	2950	---	---	---	2020	1890	1960	1710	972	1260
18	3470	3070	3230	---	---	---	2000	1890	1930	1800	1470	1620
19	3520	3350	3460	---	---	---	1950	1610	1830	1920	1510	1760
20	3610	3360	3460	---	---	---	1890	1400	1650	1900	1780	1850
21	3540	3120	3290	---	---	---	2290	1800	1920	2240	1870	2030
22	3210	3000	3100	---	---	---	1900	1620	1760	2660	2240	2440
23	3200	2830	3070	---	---	---	1870	1660	1780	2960	2660	2790
24	3610	3180	3300	---	---	---	1770	1630	1680	3260	2960	3080
25	3580	3360	3470	---	---	---	1630	1450	1530	3860	3250	3610
MONTH	5900	1980	3770	---	---	---	---	---	---	3860	690	2050

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX			MIN			MEAN			MAX			MIN			MEAN		
	OCTOBER	NOVEMBER	DECEMBER	JANUARY														
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN			
1	18.6	11.8	14.7	12.6	8.9	10.4	5.2	-.4	2.0	-.3	-.4	-.4	-.3	-.4	-.4			
2	18.3	10.9	14.2	11.3	5.3	8.1	5.1	-.3	2.0	-.3	-.4	-.4	-.3	-.4	-.4			
3	18.2	10.5	13.9	9.9	2.4	5.9	5.0	-.3	2.2	-.3	-.5	-.4	-.5	-.5	-.4			
4	14.5	10.7	12.6	9.0	2.2	5.4	6.5	.8	3.2	-.3	-.5	-.4	-.5	-.5	-.4			
5	16.1	9.0	12.1	9.1	1.3	5.1	7.4	1.9	4.4	-.3	-.5	-.4	-.5	-.5	-.4			
6	15.8	7.1	11.2	8.7	3.2	5.8	7.0	1.4	3.9	-.3	-.5	-.4	-.5	-.5	-.4			
7	15.7	7.2	11.4	10.8	4.3	7.3	3.4	1.1	2.0	-.3	-.6	-.4	-.6	-.6	-.4			
8	16.5	7.4	11.7	10.7	3.1	6.8	5.0	1.7	3.0	-.3	-.6	-.4	-.6	-.6	-.4			
9	15.6	7.7	11.6	9.3	3.8	6.6	5.0	-.2	2.3	-.3	-.7	-.4	-.7	-.7	-.4			
10	17.3	7.7	12.2	8.4	4.4	6.8	5.1	-.4	2.1	-.2	-.6	-.4	-.6	-.6	-.4			
11	17.1	8.3	12.5	8.4	1.0	4.5	4.5	-.4	1.9	-.2	-.6	-.4	-.6	-.6	-.4			
12	16.7	10.0	12.9	8.4	1.3	4.7	5.0	1.6	3.2	-.1	-.5	-.4	-.5	-.5	-.4			
13	16.0	8.4	12.2	---	---	---	6.6	3.5	4.7	.0	-.6	-.4	-.6	-.6	-.4			
14	16.4	6.9	11.2	---	---	---	7.0	3.1	4.8	.0	-.5	-.4	-.5	-.5	-.4			
15	16.7	7.1	11.6	---	---	---	4.9	-.2	2.3	-.1	-.6	-.4	-.6	-.6	-.4			
16	15.2	7.7	11.3	---	---	---	3.2	-.5	1.9	1.7	-.6	.2	-.6	-.6	.2			
17	16.5	7.7	11.6	---	---	---	4.4	-.2	1.9	1.5	-.4	.8	-.4	-.4	.8			
18	15.8	7.6	11.5	---	---	---	3.1	-.4	.7	.3	-.4	.2	-.4	-.4	.2			
19	15.4	7.6	11.2	---	---	---	6.6	-.4	-.2	2.0	-.4	.4	-.4	-.4	.4			
20	14.7	5.6	9.8	---	---	---	1.4	-.4	.0	2.6	-.4	.5	-.4	-.4	.5			
21	13.8	5.6	9.5	6.9	1.2	4.1	-.3	-.9	-.4	.0	-.6	-.4	-.6	-.6	-.4			
22	11.4	7.5	9.2	6.4	1.9	4.1	-.4	-.5	-.4	.0	-.6	-.4	-.6	-.6	-.4			
23	12.0	4.6	8.0	8.0	2.1	4.8	-.4	-1.0	-.5	1.3	-.5	.1	-.5	-.5	.1			
24	12.2	4.2	7.9	6.9	.8	3.9	-.3	-.7	-.5	-.3	-.5	-.4	-.5	-.5	-.4			
25	12.3	3.7	7.6	6.8	.8	3.7	-.3	-.6	-.5	-.3	-.6	-.4	-.6	-.6	-.4			
26	12.9	5.2	8.5	5.3	2.5	3.8	-.3	-.6	-.5	-.3	-.5	-.4	-.5	-.5	-.4			
27	13.6	5.8	9.3	3.6	.2	1.9	-.4	-.6	-.5	-.3	-.9	-.5	-.9	-.5	-.5			
28	11.9	5.8	8.6	2.6	-.4	.8	-.4	-.6	-.5	-.1	-.6	-.4	-.6	-.6	-.4			
29	12.6	7.2	9.6	4.4	-.4	1.6	-.4	-.6	-.5	1.4	-.4	.1	-.4	.1	.1			
30	12.5	6.9	9.7	4.9	-.3	1.8	-.3	-.5	-.4	1.9	-.4	.7	-.4	.7	.7			
31	13.5	7.5	10.3	---	---	---	-.4	-.4	-.4	2.7	.6	1.5	-.9	-.9	-.2			
MONTH	18.6	3.7	11.0	---	---	---	7.4	-1.0	1.4	2.7	-.9	-.2	-.9	-.9	-.2			

## DOLORES RIVER BASIN

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## 09171100 DOLORES RIVER NEAR BEDROCK, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY				MARCH				APRIL			
1	2.3	.2	1.2	8.7	-.5	3.6	17.6	6.9	12.2	---	---	---
2	5.0	-.3	1.6	9.9	-.4	4.4	13.3	7.5	10.8	---	---	---
3	1.2	-.5	-.0	10.6	.2	5.3	18.1	7.6	12.4	---	---	---
4	1.6	-.5	.1	10.0	3.9	6.9	16.6	7.5	11.7	---	---	---
5	5.5	-.3	2.1	10.9	5.1	7.5	18.4	7.1	12.5	---	---	---
6	7.5	1.0	3.9	10.3	5.3	7.2	19.2	7.2	13.0	23.0	12.8	17.8
7	6.9	.2	3.3	10.8	1.8	6.1	18.8	8.8	13.5	20.7	13.6	17.1
8	8.1	-.1	3.6	12.9	2.6	7.5	21.3	9.4	15.0	22.6	13.8	17.8
9	8.0	-.1	3.8	14.0	3.1	8.3	21.6	10.3	15.6	18.8	14.4	16.3
10	7.9	1.1	4.4	13.3	4.7	8.8	16.4	11.0	13.7	23.0	11.9	16.9
11	7.0	1.6	4.2	14.5	4.5	9.4	13.6	11.0	12.2	---	---	---
12	8.2	.8	4.1	13.8	6.9	10.4	15.9	8.0	11.9	---	---	---
13	8.6	-.1	4.0	11.6	7.7	9.5	14.1	9.2	11.1	---	---	---
14	8.8	-.1	4.2	11.7	5.3	8.5	17.3	7.0	11.3	---	---	---
15	9.4	.2	4.6	14.6	4.5	9.2	18.3	6.3	11.8	---	---	---
16	8.4	.5	4.4	15.1	5.5	9.7	16.9	8.4	12.5	---	---	---
17	9.5	.9	5.0	11.5	6.2	8.7	16.4	8.7	12.1	---	---	---
18	10.5	2.9	6.4	13.9	3.9	8.5	13.6	9.2	11.3	---	---	---
19	6.6	2.8	4.8	14.2	3.0	8.3	17.8	6.1	11.3	---	---	---
20	10.1	4.5	6.9	15.7	3.4	9.3	13.5	7.5	10.2	---	---	---
21	8.0	6.5	7.1	16.3	4.8	10.4	16.9	6.3	11.1	---	---	---
22	8.0	4.6	6.5	15.9	7.2	11.3	17.6	6.2	11.4	---	---	---
23	9.8	1.3	5.2	10.8	7.0	8.9	---	---	---	---	---	---
24	9.4	1.3	5.0	10.1	4.6	7.1	---	---	---	---	---	---
25	7.6	1.9	4.6	12.8	4.6	8.0	---	---	---	---	---	---
26	5.7	2.2	3.9	14.9	4.1	8.9	---	---	---	---	---	---
27	6.9	.2	3.1	14.3	4.4	9.4	---	---	---	---	---	---
28	8.3	-.4	3.3	14.7	6.0	10.0	16.7	8.5	12.1	---	---	---
29	8.2	.1	3.6	14.5	6.9	9.9	17.9	6.7	12.3	---	---	---
30	---	---	---	17.1	5.6	11.1	---	---	---	---	---	---
31	---	---	---	18.1	6.7	12.2	---	---	---	23.9	13.2	18.2
MONTH	10.5	-.5	4.0	18.1	-.5	8.5	---	---	---	---	---	---
	JUNE				JULY				AUGUST			
1	25.2	14.7	19.6	29.1	18.9	23.7	---	---	---	26.5	16.5	20.9
2	27.0	14.6	20.4	29.5	19.4	24.3	---	---	---	26.2	18.1	21.8
3	27.8	15.3	21.3	32.0	20.2	25.6	---	---	---	27.9	17.0	22.0
4	27.9	16.1	21.9	31.7	21.6	26.2	---	---	---	27.0	17.5	21.9
5	27.7	16.8	22.2	29.9	21.8	24.9	---	---	---	23.8	19.3	21.0
6	28.1	17.7	22.6	30.4	21.5	25.5	---	---	---	23.6	17.7	19.9
7	29.2	17.1	22.9	29.0	21.9	25.1	---	---	---	25.1	13.0	20.1
8	28.0	17.6	22.5	28.4	22.0	24.7	28.5	18.2	22.6	25.5	15.4	20.1
9	28.7	18.1	22.7	28.6	21.8	24.7	25.5	18.2	21.7	25.3	15.7	20.2
10	27.8	17.9	22.6	30.2	21.3	25.5	29.3	17.8	22.9	25.1	15.9	20.2
11	26.4	18.3	22.0	29.7	21.3	25.5	29.5	17.8	23.2	22.7	18.7	20.3
12	25.2	18.3	21.3	29.6	20.9	24.8	29.8	18.0	23.5	23.6	17.0	19.7
13	25.1	18.5	21.5	31.4	21.8	25.8	30.0	17.9	23.7	23.3	17.2	19.8
14	23.3	18.3	20.5	31.3	20.4	25.6	29.6	18.8	23.5	19.1	13.4	16.1
15	26.4	17.7	21.1	---	---	---	28.0	20.0	23.3	22.1	13.3	17.1
16	26.8	18.0	22.0	---	---	---	29.1	18.8	23.6	18.9	14.9	16.9
17	26.5	18.0	22.0	---	---	---	27.2	18.5	22.5	18.5	13.0	15.1
18	26.9	16.5	21.6	---	---	---	25.5	19.0	21.9	13.6	10.8	11.4
19	27.8	16.3	21.7	---	---	---	28.2	18.9	23.1	15.7	9.3	12.1
20	26.0	16.7	21.1	---	---	---	26.8	19.5	22.8	18.6	10.6	14.1
21	26.9	18.6	21.9	---	---	---	27.5	19.2	22.9	20.1	10.9	15.0
22	26.1	18.4	21.8	---	---	---	27.4	19.0	22.4	20.8	12.3	16.3
23	27.3	16.6	21.6	---	---	---	29.2	19.1	23.3	22.7	14.7	18.2
24	26.1	16.7	21.3	---	---	---	28.4	20.6	23.7	21.9	14.1	17.8
25	24.4	16.1	20.6	---	---	---	27.4	21.0	23.4	19.3	14.2	16.7
26	23.1	18.0	20.6	---	---	---	28.4	20.3	23.2	17.1	12.1	14.3
27	24.7	17.9	20.6	---	---	---	29.2	20.5	24.1	17.5	9.0	12.9
28	26.0	18.1	21.4	---	---	---	27.6	20.5	23.9	18.5	8.6	13.2
29	29.2	17.0	22.7	---	---	---	28.4	19.4	23.6	19.7	9.6	14.3
30	25.5	19.2	22.7	---	---	---	27.5	17.5	22.0	19.6	10.4	14.8
31	---	---	---	---	---	---	26.8	17.2	21.6	---	---	---
MONTH	29.2	14.6	21.6	---	---	---	---	---	---	27.9	8.6	17.5

## DOLORES RIVER BASIN

**09172500 SAN MIGUEL RIVER NEAR PLACERVILLE, CO**

**LOCATION.**--Lat 38°02'33", long 108°07'54", in NW<sup>1/4</sup>NE<sup>1/4</sup> sec.25, T.44 N., R.12 W., San Miguel County, Hydrologic Unit 14030003, on right bank 1.5 mi downstream from Specie Creek in vicinity of mile marker 88.68 on State Highway 145 and 4.5 mi northwest of Placerville, CO.

**DRAINAGE AREA.**--310 mi<sup>2</sup>.

**PERIOD OF RECORD.**--January to December 1909, September 1910 to December 1912, April 1930 to September 1934, April 1942 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "at Placerville," 1910-12. Statistical summary computed for 1911 to current year.

**GAGE.**--Water-stage recorder with satellite telemetry. Elevation of gage is 7,030 ft above sea level, from topographic map. See WSP 1713 or 1733 for history of changes prior to Oct. 21, 1958. Oct. 22, 1958 to Mar. 4, 1986, gage located 0.8 mi upstream from present site, at different datum. Mar. 5, 1986, gage moved to present site, at present datum.

**REMARKS.**--Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 1,700 acres upstream from station. One diversion from Fall Creek for irrigation of about 2,000 acres in Beaver and Saltado Creek basins. One small ditch diverts water from Leopard Creek to Uncompahgre River basin. Slight regulation by Lake Hope and Trout Lake operated by the City of Telluride, Public Service of Colorado, Pacific Light and Power Company, and Tri State Power Company, combined capacity, 5,040 acre-ft. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	173	105	89	e82	e80	73	109	330	360	335	115	100
2	157	92	89	e75	e77	71	144	354	429	325	114	97
3	148	74	88	e73	e74	69	166	386	526	297	114	97
4	145	78	86	e77	e72	70	142	418	604	297	116	91
5	141	76	84	e80	e72	71	129	489	631	288	111	93
6	136	81	84	e84	e73	68	140	558	652	273	103	119
7	138	105	83	e77	e75	67	165	564	648	258	99	102
8	134	106	83	e77	e77	73	220	556	617	246	99	86
9	132	106	81	e80	e80	73	275	608	559	246	100	76
10	129	109	86	e82	e83	79	293	553	533	269	93	72
11	126	100	85	e82	84	82	274	606	499	246	89	72
12	124	111	85	e80	84	89	211	726	480	225	90	83
13	122	115	84	e82	81	88	200	792	444	205	83	103
14	118	114	e80	e86	80	82	176	795	587	194	82	132
15	120	112	69	e86	83	78	175	787	561	182	78	164
16	120	103	e70	e85	85	78	212	872	483	178	76	151
17	117	100	e70	e83	87	81	205	979	455	178	83	158
18	117	95	e69	e80	87	79	198	1020	454	208	89	156
19	115	95	e67	e80	85	72	210	995	427	186	89	155
20	108	95	e64	e84	86	67	196	997	416	165	88	150
21	108	94	e64	e87	101	84	177	909	503	155	91	140
22	110	94	e64	e85	105	98	173	885	556	146	96	141
23	100	93	e64	e82	95	109	193	778	449	137	96	144
24	96	88	e64	e82	89	93	248	640	376	132	106	146
25	93	e90	e63	e82	87	80	316	546	341	127	112	141
26	91	e87	e62	e81	86	77	336	460	329	125	147	137
27	92	e84	e65	e80	78	76	359	384	385	119	143	129
28	100	81	e68	e80	72	80	369	334	452	119	132	127
29	99	89	e71	e81	76	90	288	302	422	138	122	121
30	98	88	e75	e82	---	85	286	339	369	143	111	117
31	98	---	e80	e80	---	91	---	338	---	125	105	---
TOTAL	3705	2860	2336	2517	2394	2473	6585	19300	14547	6267	3172	3600
MEAN	120	95.3	75.4	81.2	82.6	79.8	219	623	485	202	102	120
MAX	173	115	89	87	105	109	369	1020	652	335	147	164
MIN	91	74	62	73	72	67	109	302	329	119	76	72
AC-FT	7350	5670	4630	4990	4750	4910	13060	38280	28850	12430	6290	7140

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1996, BY WATER YEAR (WY)**

MEAN	110	83.0	68.0	62.6	62.5	74.9	230	565	795	447	212	139
MAX	399	138	104	92.1	94.2	129	593	1515	1528	1197	484	342
(WY)	1912	1985	1987	1943	1987	1971	1942	1958	1983	1983	1983	1970
MIN	50.9	51.4	40.8	38.3	37.1	46.4	79.6	136	186	104	83.4	63.8
(WY)	1957	1990	1977	1977	1990	1980	1951	1977	1934	1977	1972	1956

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1911 - 1996
ANNUAL TOTAL	135331	69756	
ANNUAL MEAN	371	191	236
HIGHEST ANNUAL MEAN			414
LOWEST ANNUAL MEAN			88.8
HIGHEST DAILY MEAN	1740	Jun 17	1983
LOWEST DAILY MEAN	62	Dec 26	1960
ANNUAL SEVEN-DAY MINIMUM	64	Dec 20	1976
INSTANTANEOUS PEAK FLOW		1200 May 18	1983
INSTANTANEOUS PEAK STAGE		4.50 May 18	1983
ANNUAL RUNOFF (AC-FT)	268400	138400	171000
10 PERCENT EXCEEDS	1110	466	643
50 PERCENT EXCEEDS	139	105	104
90 PERCENT EXCEEDS	78	75	56

e-Estimated.

a-Maximum discharge for period of record, 10000 ft<sup>3</sup>/s, Sep 5, 1909, gage height not determined; result of failure of Trout and Middle Reservoir Dams.

b-Maximum gage height for statistical period of record, 8.06 ft, Jun 6, 1985.

**09174600 SAN MIGUEL RIVER AT BROOKS BRIDGE, NEAR NUCLA, CO**

LOCATION--Lat 38°14'39", long 108°30'05", in NE<sup>1/4</sup>NE<sup>1/4</sup> sec. 15, T.46 N., R.15 W., Montrose County, Hydrologic Unit 14030003, on right bank at downstream side of Brooks Bridge, 0.5 mi upstream from Tri-State Power Plant, 3 mi upstream from Naturita Creek and 4.4 mi northeast of Naturita.

DRAINAGE AREA.--736 mi<sup>2</sup>.

PERIOD OF RECORD.--March 1995 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 5,570 ft above sea level, from topographic map.

REMARKS.--Records good. Diversions for irrigation of several thousand acres upstream from station and diversions upstream for an additional several thousand acres downstream from the gage. One small ditch diverts water from Leopard Creek to Uncompahgre River basin. Slight regulation by Lake Hope and Trout Lake (combined capacity, 5,040 acre-ft) operated by the City of Telluride, Public Service of Colorado, Pacific Light and Power Company, and Tri State Power Company. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	125	120	e95	e95	103	78	170	378	274	264	16	8.2
2	100	122	e94	e91	96	81	265	402	328	244	12	6.4
3	111	99	94	e87	95	79	316	445	412	211	11	6.9
4	139	89	94	e86	e90	81	297	479	491	198	11	8.0
5	151	91	94	e92	e95	82	267	533	518	195	12	7.6
6	159	91	95	e99	102	82	300	595	542	179	9.0	13
7	150	108	96	e99	99	73	373	636	540	160	5.1	27
8	148	118	98	e96	99	71	466	614	522	143	4.4	15
9	144	119	86	e98	100	51	631	658	462	136	5.2	10
10	143	127	85	e100	100	36	735	607	427	159	6.7	5.0
11	141	112	82	e105	99	40	620	625	389	148	7.7	2.7
12	138	108	95	e105	98	49	441	729	370	126	4.5	2.8
13	138	110	94	e105	93	53	446	820	334	104	4.0	4.5
14	134	107	96	e105	90	48	344	812	428	95	4.1	40
15	130	94	85	e100	92	40	317	841	493	81	4.0	92
16	130	62	71	e100	91	58	471	959	410	72	3.6	85
17	127	39	e77	e100	94	96	418	1020	365	65	3.1	86
18	127	39	77	e96	95	89	297	1000	355	91	e3.5	103
19	125	44	e72	e90	92	85	382	955	333	91	e3.4	100
20	121	44	e71	e90	93	83	334	959	319	65	3.4	95
21	118	45	e70	e90	116	91	247	858	367	53	4.2	84
22	124	45	e70	e95	125	117	225	803	472	41	5.2	78
23	123	101	e64	e98	114	146	226	721	396	32	6.0	81
24	112	96	e54	e94	98	131	319	562	302	26	7.8	84
25	109	96	e38	e90	98	108	439	476	262	22	11	81
26	107	e100	e52	e90	95	101	482	403	241	20	27	79
27	107	106	e70	e90	85	96	484	336	278	17	49	73
28	110	87	e78	e90	81	101	528	294	358	15	40	68
29	115	e90	e73	e96	87	123	376	255	377	19	27	64
30	114	e93	e74	109	---	124	351	259	300	32	18	59
31	113	---	e90	106	---	133	---	262	---	23	11	---
TOTAL	3933	2702	2484	2987	2815	2626	11567	19296	11665	3127	339.9	1469.1
MEAN	127	90.1	80.1	96.4	97.1	84.7	386	622	389	101	11.0	49.0
MAX	159	127	98	109	125	146	735	1020	542	264	49	103
MIN	100	39	38	86	81	36	170	255	241	15	3.1	2.7
AC-FT	7800	5360	4930	5920	5580	5210	22940	38270	23140	6200	674	2910

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1996, BY WATER YEAR (WY)

## SUMMARY STATISTICS

FOR 1996 WATER YEAR

WATER YEARS 1995 - 1996

ANNUAL TOTAL	65011.0			
ANNUAL MEAN	178		178	
HIGHEST ANNUAL MEAN			178	1996
LOWEST ANNUAL MEAN			178	1996
HIGHEST DAILY MEAN	1020	May 17	<sup>a</sup> 2370	Jun 17 1995
LOWEST DAILY MEAN	2.7	Sep 11	2.7	Sep 11 1996
ANNUAL SEVEN-DAY MINIMUM	3.6	Aug 14	3.6	Aug 14 1996
INSTANTANEOUS PEAK FLOW	1130	May 17	3200	Jun 17 1995
INSTANTANEOUS PEAK STAGE	4.22	May 17	6.32	Jun 17 1995
ANNUAL RUNOFF (AC-FT)	128900		128700	
10 PERCENT EXCEEDS	467		1290	
50 PERCENT EXCEEDS	98		140	
90 PERCENT EXCEEDS	14		39	

e-Estimated.

a-Also occurred Jun 18, 1995.

## GREEN RIVER BASIN

**09235490 VERMILLION CREEK BELOW DOUGLAS DRAW, NEAR LODORE, CO**

LOCATION.--Lat 40°43'20", long 108°45'26", in NW<sup>1/4</sup>SW<sup>1/4</sup> sec.21, T.9 N., R.101 W., Routt County, Hydrologic Unit 14040109, on right bank 0.5 mi downstream from Douglas Draw, and 7.0 mi east of Lodore Ranger Station.

DRAINAGE AREA.--918 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--October 1994 to December 1995 (discontinued).

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 5,610 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	7.9	11	---	---	---	---	---	---	---	---	---
2	2.5	7.4	12	---	---	---	---	---	---	---	---	---
3	2.7	e7.5	10	---	---	---	---	---	---	---	---	---
4	3.5	5.3	9.6	---	---	---	---	---	---	---	---	---
5	3.7	6.0	9.6	---	---	---	---	---	---	---	---	---
6	3.6	8.0	9.1	---	---	---	---	---	---	---	---	---
7	4.9	7.9	9.7	---	---	---	---	---	---	---	---	---
8	5.3	7.9	8.8	---	---	---	---	---	---	---	---	---
9	5.6	8.7	8.9	---	---	---	---	---	---	---	---	---
10	7.3	8.2	9.5	---	---	---	---	---	---	---	---	---
11	9.0	e8.3	9.3	---	---	---	---	---	---	---	---	---
12	9.3	8.3	8.9	---	---	---	---	---	---	---	---	---
13	9.8	10	11	---	---	---	---	---	---	---	---	---
14	11	11	10	---	---	---	---	---	---	---	---	---
15	13	8.0	e9.0	---	---	---	---	---	---	---	---	---
16	14	8.0	e8.8	---	---	---	---	---	---	---	---	---
17	15	8.0	e8.5	---	---	---	---	---	---	---	---	---
18	16	8.6	e8.2	---	---	---	---	---	---	---	---	---
19	15	8.5	e8.6	---	---	---	---	---	---	---	---	---
20	16	8.4	e8.5	---	---	---	---	---	---	---	---	---
21	19	8.8	e8.9	---	---	---	---	---	---	---	---	---
22	22	8.5	e7.5	---	---	---	---	---	---	---	---	---
23	23	9.1	e8.5	---	---	---	---	---	---	---	---	---
24	18	8.4	e9.0	---	---	---	---	---	---	---	---	---
25	15	8.6	e10	---	---	---	---	---	---	---	---	---
26	16	9.9	e8.4	---	---	---	---	---	---	---	---	---
27	17	10	e8.0	---	---	---	---	---	---	---	---	---
28	6.7	8.2	e8.2	---	---	---	---	---	---	---	---	---
29	7.0	9.5	e8.5	---	---	---	---	---	---	---	---	---
30	7.7	11	e8.5	---	---	---	---	---	---	---	---	---
31	7.8	---	e8.8	---	---	---	---	---	---	---	---	---
TOTAL	328.8	253.9	283.3	---	---	---	---	---	---	---	---	---
MEAN	10.6	8.46	9.14	---	---	---	---	---	---	---	---	---
MAX	23	11	12	---	---	---	---	---	---	---	---	---
MIN	2.4	5.3	7.5	---	---	---	---	---	---	---	---	---
AC-FT	652	504	562	---	---	---	---	---	---	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1996, BY WATER YEAR (WY)

MEAN	8.60	5.40	5.84	2.43	7.80	6.87	2.28	8.41	37.3	8.05	1.70	2.47
MAX	10.6	8.46	9.14	2.43	7.80	6.87	2.28	8.41	37.3	8.05	1.70	2.47
(WY)	1996	1996	1996	1995	1995	1995	1995	1995	1995	1995	1995	1995
MIN	6.59	2.33	2.55	2.43	7.80	6.87	2.28	8.41	37.3	8.05	1.70	2.47
(WY)	1995	1995	1995	1995	1995	1995	1995	1995	1995	1995	1995	1995

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR *	WATER YEARS 1995 - 1996 *
ANNUAL TOTAL	3195.61		
ANNUAL MEAN	8.76		
HIGHEST ANNUAL MEAN			7.35
LOWEST ANNUAL MEAN			7.35
HIGHEST DAILY MEAN	64	Jun 10	64
LOWEST DAILY MEAN	.67	Aug 8	.67
ANNUAL SEVEN-DAY MINIMUM	.82	Aug 17	.82
INSTANTANEOUS PEAK FLOW		a26 Oct 22	b,c <sub>87</sub> Jun 10 1995
INSTANTANEOUS PEAK STAGE		1.42 Oct 22	d1.72 Jun 10 1995
ANNUAL RUNOFF (AC-FT)	6340		
10 PERCENT EXCEEDS	16		
50 PERCENT EXCEEDS	5.2		
90 PERCENT EXCEEDS	1.5		

e-Estimated.

\*During period of record.

a-Also occurred Oct 23.

b-From rating extended above 64 ft<sup>3</sup>/s.

c-May have been higher during estimated period.

d-Maximum gage height, 5.04 ft, Dec 8, 1994, backwater from ice.

## GREEN RIVER BASIN

315

**09235490 VERMILLION CREEK BELOW DOUGLAS DRAW, NEAR LODORE, CO--Continued**  
**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--October 1994 to December 1995 (discontinued).

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT- ANCE	PER SECOND	SED- IMENT, DIS- CHARGE, SUS- PENDED (MG/L)	SED- IMENT, DIS- CHARGE, SUS- PENDED (T/DAY)
--	------	------	---	--	---------------	---	--

OCT 06...	1430	64	7330	1260
JAN 30...	1245	3.7	149	1.5
FEB				

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT- ANCE	PH (US/CM)	TEMPER- (STAND- ARD UNITS)	OXYGEN, (DEG C)	HARD- NESS TOTAL (MG/L)	CALCIUM SOLVED (MG/L CACO3)	MAGNE- SIUM, DIS- SOLVED (MG/L AS CA)	SODIUM, DIS- SOLVED (MG/L AS MG)	SODIUM AD- SORP- TION RATIO
------	------	---	--	---------------	-------------------------------------	--------------------	----------------------------------	--------------------------------------	--	--	---

DEC 06...	1100	9.5	1530	8.3	3.0	11.3	510	110	57	140	3
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DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY	SULFATE	CHLO- RIDE,	FLUO- RIDE,	SILICA, DIS- SOLVED	RESIDUE AT 180 DEG. C	SUM OF TUENTS, SOLVED (MG/L AS CACO3)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	OIL AND GREASE, TOTAL RECOV.
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DEC 06...	5.4	270	450	67	0.30	14	1040	1010	1.41	26.5	<1
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DATE	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM SOLVED (UG/L AS LI)
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DEC 06...	40	<0.5	<1	<5	<3	<10	<3	<10	79
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DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
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DEC 06...	83	<10	<10	<1	<1	1000	<6	3
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## MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT- ANCE	TEMPER- ATURE WATER (DEG C)
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OCT 30...	0800	8.3	1630	6.0
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28...	1530	18	7910	384
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## GREEN RIVER BASIN

**09237450 YAMPA RIVER ABOVE STAGECOACH RESERVOIR, CO**

LOCATION.--Lat 40°16'09", long 106°52'49", in SW<sup>1/4</sup>SW<sup>1/4</sup> sec.36, T.4 N., R.85 W., Routt County, Hydrologic Unit 14050001, on left bank 1.4 mi downstream from Jack Creek and 4.0 mi east of Oak Creek, CO.

DRAINAGE AREA.--257 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1988 to current year. Water-quality data available, July 1984 to September 1992.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 7,240 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 12,000 acres upstream from station. Natural flow of stream affected by 2 diversions for irrigation to Egeria Creek into Colorado River basin and by storage in Stillwater, Yampa and YamColo Reservoirs (total capacity, 15,820 acre-ft). Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	86	e74	e74	e75	e75	132	197	242	142	103	43
2	82	76	e72	e68	e74	e75	186	217	228	133	107	42
3	76	69	e70	e74	e74	e76	235	241	227	124	111	39
4	89	75	70	e76	e74	e76	228	257	241	135	105	36
5	91	71	73	e74	e75	e74	222	265	302	151	103	34
6	90	72	76	e68	e76	e72	238	287	333	152	96	54
7	91	67	73	e74	e78	e70	285	294	308	138	91	53
8	85	66	72	e72	e78	e70	380	308	294	129	85	46
9	80	69	75	e76	e77	e73	467	324	297	135	79	46
10	79	71	72	e76	e76	e71	464	327	296	136	76	45
11	77	73	71	e74	e73	e71	483	313	289	124	75	41
12	71	76	71	e74	e74	e70	384	298	274	108	72	54
13	83	94	73	e76	e75	e70	351	282	259	105	70	84
14	76	106	71	e75	e76	e70	291	279	241	105	70	65
15	75	93	55	e76	e77	e75	247	284	247	106	70	66
16	73	81	62	e77	e76	e76	245	290	254	124	74	70
17	71	77	e66	e75	e77	e75	233	332	235	127	76	71
18	73	73	e70	e73	e78	e73	206	343	210	180	81	73
19	69	71	e68	e74	e77	e70	187	323	189	188	95	73
20	67	70	e66	e75	e75	e72	155	312	178	154	95	75
21	68	67	e68	e74	e74	e74	155	255	212	147	88	68
22	71	68	e70	e76	e75	e76	142	222	264	135	89	62
23	68	68	e70	e76	e75	e75	148	202	211	132	78	68
24	68	66	e68	e74	e75	78	231	196	183	127	71	71
25	72	64	e72	e74	e75	63	317	231	173	130	65	61
26	75	68	e74	e73	e74	57	248	326	178	117	66	63
27	75	68	e76	e73	e74	62	270	316	183	108	62	62
28	72	e70	e77	e73	e75	68	251	295	177	105	60	63
29	72	e73	e77	e75	e75	86	193	299	173	115	59	59
30	73	e76	e76	e76	---	94	183	258	153	127	54	53
31	75	---	e76	e76	---	102	---	247	---	113	45	---
TOTAL	2377	2224	2204	2301	2187	2289	7757	8620	7051	4052	2471	1740
MEAN	76.7	74.1	71.1	74.2	75.4	73.8	259	278	235	131	79.7	58.0
MAX	91	106	77	77	78	102	483	343	333	188	111	84
MIN	67	64	55	68	73	57	132	196	153	105	45	34
AC-FT	4710	4410	4370	4560	4340	4540	15390	17100	13990	8040	4900	3450

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1996, BY WATER YEAR (WY)

MEAN	43.7	46.4	40.2	37.2	39.5	55.9	107	103	104	101	68.1	45.6
(WY)	76.7	74.1	71.1	74.2	75.4	79.7	259	278	235	131	79.7	58.0
1996	1996	1996	1996	1996	1996	1989	1996	1996	1996	1995	1995	1995
MIN	32.0	32.0	29.2	21.4	29.4	38.7	48.7	38.5	39.4	50.4	43.1	28.5
(WY)	1995	1995	1990	1990	1991	1992	1995	1990	1994	1994	1994	1994

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR				FOR 1996 WATER YEAR				WATER YEARS 1989 - 1996			
ANNUAL TOTAL		28741		45273				66.1			
ANNUAL MEAN		78.7		124				124			
HIGHEST ANNUAL MEAN								44.6			
LOWEST ANNUAL MEAN								14			
HIGHEST DAILY MEAN		255	Jun 18	483	Apr 11			483	Apr 11	1996	
LOWEST DAILY MEAN		a24	Mar 24	34	Sep 5			b14	Jan 24	1990	
ANNUAL SEVEN-DAY MINIMUM		25	Mar 24	42	Aug 30			15	Jan 22	1990	
INSTANTANEOUS PEAK FLOW				582	Apr 10			582	Apr 10	1996	
INSTANTANEOUS PEAK STAGE				5.57	Apr 10			c5.57	Apr 10	1996	
ANNUAL RUNOFF (AC-FT)		57010		89800				47910			
10 PERCENT EXCEEDS		134		271				118			
50 PERCENT EXCEEDS		73		76				48			
90 PERCENT EXCEEDS		30		66				30			

e-Estimated.

a-Also occurred Mar 25 and Apr 1.

b-Also occurred Jan 25-26, 1990.

c-Maximum gage height 6.76 ft, Nov 30, 1995, backwater from ice.

**09237500 YAMPA RIVER BELOW STAGECOACH RESERVOIR, CO**

LOCATION.--Lat  $40^{\circ}17'15''$ , long  $106^{\circ}49'33''$ , in SE $^{1/4}$ NE $^{1/4}$  sec.29, T.4 N., R.84 W., Routt County, Hydrologic Unit 1405001, on left bank, 0.3 mi downstream from Stagecoach Reservoir, 1.0 mi downstream from Morrison Creek, and 6.5 mi east of Oak Creek.

DRAINAGE AREA.--278 mi $^2$ .

PERIOD OF RECORD.--September 1939 to September 1944, monthly discharge only for some periods, published in WSP 1313; October 1956 to September 1972; October 1984 to current year. Water-quality data available, July 1984 to September 1992. Prior to October 1990, published as Yampa River near Oak Creek. Statistical summary computed for 1989 to current year.

REVISED RECORDS.--WDR CO-89-2: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 7,050 ft above sea level, from topographic map. September 1939 to November 15, 1939, nonrecording gage, November 16, 1939 to September 1944 and October 1956 to September 1972, water-stage recorder at site 0.5 mi upstream, at different datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Flow regulated since Dec. 20, 1988, by Stagecoach Reservoir (capacity 33,275 acre-ft), 0.3 mi upstream. Diversions for irrigation of about 12,000 acres upstream from station. Natural flow of stream affected by 2 diversions for irrigation to Egeria Creek into Colorado River basin and by storage in Stillwater, Yampa and YamColo Reservoirs (total capacity, 15,820 acre-ft). Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	110	98	88	62	e88	89	164	268	157	97	81
2	96	98	91	94	64	e88	88	189	250	145	93	82
3	90	96	93	94	61	e88	91	226	235	134	93	91
4	85	89	99	95	61	87	91	258	231	128	92	90
5	87	83	98	94	66	84	93	279	253	129	94	91
6	87	96	101	87	69	85	89	299	295	118	90	91
7	87	98	82	88	80	84	88	313	316	141	93	82
8	89	92	76	93	79	84	91	297	318	135	98	82
9	84	97	90	93	79	83	92	341	315	132	99	93
10	66	98	90	94	70	84	156	389	317	129	99	99
11	85	94	97	94	69	89	208	374	318	125	99	92
12	87	91	98	93	78	90	224	362	311	119	98	92
13	85	102	98	86	82	89	239	342	293	112	87	92
14	56	104	97	85	81	89	208	329	279	108	91	81
15	56	104	97	91	79	89	176	324	268	104	92	81
16	86	88	88	90	70	85	185	335	270	105	89	93
17	98	89	88	85	75	86	194	344	254	103	78	93
18	102	90	97	79	74	90	198	371	259	118	81	89
19	101	91	98	80	81	90	204	365	226	147	89	83
20	100	94	93	72	82	90	203	350	206	152	90	82
21	85	97	95	72	84	90	203	342	197	143	94	74
22	84	99	97	80	63	92	192	291	218	128	94	74
23	100	91	90	79	87	88	186	253	269	117	90	83
24	96	97	90	79	87	88	188	226	233	110	67	83
25	96	87	90	79	87	92	190	218	201	107	77	49
26	96	90	96	65	86	92	211	280	188	104	93	48
27	104	94	96	58	87	92	223	312	185	100	93	71
28	95	96	96	59	89	90	241	315	185	95	63	57
29	100	96	97	66	e88	90	176	323	183	94	65	70
30	104	91	89	73	---	86	168	303	170	80	91	79
31	106	---	88	58	---	86	---	281	---	100	81	---
TOTAL	2776	2842	2893	2543	2220	2728	4985	9395	7511	3719	2750	2448
MEAN	89.5	94.7	93.3	82.0	76.6	88.0	166	303	250	120	88.7	81.6
MAX	106	110	101	95	89	92	241	389	318	157	99	99
MIN	56	83	76	58	61	83	88	164	170	80	63	48
AC-FT	5510	5640	5740	5040	4400	5410	9890	18630	14900	7380	5450	4860

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1996, BY WATER YEAR (WY)**

MEAN	56.3	58.8	58.9	57.3	55.0	52.1	63.7	92.2	96.4	85.3	69.4	64.7
MAX	89.5	94.7	93.3	82.0	76.6	88.0	166	303	250	172	97.1	93.9
(WY)	1996	1996	1996	1996	1996	1996	1996	1996	1996	1995	1993	1995
MIN	25.8	37.3	38.7	37.2	30.0	18.0	32.3	12.4	12.8	22.3	34.4	31.8
(WY)	1991	1991	1989	1989	1989	1989	1989	1989	1989	1989	1989	1990

**SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR**

ANNUAL TOTAL	30430	46810										
ANNUAL MEAN	83.4	128										
HIGHEST ANNUAL MEAN			a	67.6								
LOWEST ANNUAL MEAN			128									
HIGHEST DAILY MEAN	270	Jul 15	389	May 10								
LOWEST DAILY MEAN	37	Mar 26	48	Sep 26	b	32.1						
ANNUAL SEVEN-DAY MINIMUM	39	Mar 25	63	Jan 27	c,d	9.4						
INSTANTANEOUS PEAK FLOW			411	May 9	f	416						
INSTANTANEOUS PEAK STAGE			3.43	May 9	g	3.34						
ANNUAL RUNOFF (AC-FT)	60360	92850										
10 PERCENT EXCEEDS	134	268										
50 PERCENT EXCEEDS	87	93										
90 PERCENT EXCEEDS	42	78										

e-Estimated.

a-Average discharge for 25 years (water years 1940-44, 1957-72, 1985-88), 89.4 ft $^3$ /s; 64770 acre-ft/yr, prior to completion of Stagecoach Reservoir.

b-Maximum daily discharge for period of record, 1020 ft $^3$ /s, Apr 16, 1962.

c-Also occurred Jun 2-3, 1989.

d-Minimum daily discharge for period of record, 8.9 ft $^3$ /s, May 22, 1963.

f-Maximum discharge and stage for period of record, 1400 ft $^3$ /s, Apr 16, 1962, gage height, 7.56 ft, from rating curve extended above 570 ft $^3$ /s, site and datum then in use.

g-Maximum gage height, 8.08 ft, Mar 8, 1987, backwater from ice.

## GREEN RIVER BASIN

**09238900 FISH CREEK AT UPPER STATION, NEAR STEAMBOAT SPRINGS, CO**

LOCATION.--Lat 40°28'30", long 106°47'11", in SE<sup>1/4</sup>SE<sup>1/4</sup> sec.15, T.6 N., R.84 W., Routt County, Hydrologic Unit 14050001, on right bank 2.6 mi upstream from mouth and 2.5 mi east of Steamboat Springs.

DRAINAGE AREA.--24.8 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1966 to September 1972, May 1982 to current year. Statistics do not include period of no record.

GAGE.--Water-stage recorder with satellite telemetry, and concrete control. Elevation of gage is 7,150 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are fair. Diversions upstream from station by Mount Werner Recreation District and City of Steamboat Springs for domestic use began in 1972 (see table below for figures of diversion). Natural flow of stream affected by storage in Fish Creek and Long Lake Reservoir, combined capacity 2,237 acre-ft. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	12	11	6.8	6.4	5.5	21	29	262	252	10	1.8
2	15	11	11	6.6	5.9	5.6	27	30	309	229	8.5	1.7
3	13	8.7	11	6.5	5.8	5.4	26	34	380	214	15	1.7
4	16	9.5	11	6.7	5.3	4.8	26	49	446	200	10	2.0
5	16	8.7	12	6.0	4.4	4.6	26	76	514	205	7.0	3.2
6	13	9.4	12	5.2	4.2	5.0	29	102	525	188	4.3	6.6
7	13	8.3	12	5.9	4.2	4.9	32	118	534	161	3.0	5.0
8	14	27	13	6.6	4.5	4.8	40	128	560	121	2.2	3.8
9	13	45	11	6.3	4.5	4.8	62	146	595	95	1.7	3.5
10	13	35	11	5.9	4.3	4.9	69	152	612	82	2.5	3.0
11	16	29	11	6.1	4.3	5.6	66	176	598	69	2.1	2.5
12	24	19	10	5.8	4.4	6.6	53	237	599	57	1.7	2.8
13	28	18	11	6.6	4.4	6.9	42	292	589	48	1.6	2.8
14	19	18	e14	5.2	4.5	6.6	35	341	538	41	1.8	2.7
15	17	15	e19	4.9	4.5	7.1	31	371	489	37	1.9	2.6
16	19	15	e14	5.2	4.7	7.9	30	444	518	35	2.0	2.4
17	14	14	e12	6.2	4.6	7.3	31	551	544	36	1.7	2.5
18	15	13	e14	6.5	5.4	8.3	29	502	543	37	2.1	2.9
19	15	13	e18	6.4	5.4	7.9	27	421	549	34	2.0	2.6
20	8.9	13	e19	6.4	6.1	8.2	25	369	531	25	1.9	2.9
21	8.3	13	e14	5.9	6.3	11	23	319	716	19	1.9	3.8
22	7.2	12	8.5	5.9	6.9	14	22	312	714	16	10	4.8
23	8.8	12	8.6	6.5	6.1	18	22	293	542	16	19	6.4
24	9.9	12	e14	6.3	5.6	17	36	286	477	15	2.8	6.0
25	8.1	12	8.9	6.6	5.6	15	55	372	450	13	2.4	7.9
26	7.7	12	e10	6.5	6.1	15	45	351	423	11	2.2	6.8
27	7.1	12	e16	6.0	5.9	12	40	247	371	10	3.0	6.7
28	8.4	13	e18	6.3	5.6	11	37	197	322	8.6	3.2	7.0
29	7.5	12	6.4	6.1	5.4	12	33	179	282	20	2.6	14
30	10	12	5.8	6.2	---	14	31	203	267	27	2.2	14
31	14	---	6.3	6.5	---	16	---	225	---	15	2.0	---
TOTAL	414.9	463.6	373.5	190.6	151.3	277.7	1071	7552	14799	2336.6	134.3	136.4
MEAN	13.4	15.5	12.0	6.15	5.22	8.96	35.7	244	493	75.4	4.33	4.55
MAX	28	45	19	6.8	6.9	18	69	551	716	252	19	14
MIN	7.1	8.3	5.8	4.9	4.2	4.6	21	29	262	8.6	1.6	1.7
AC-FT	823	920	741	378	300	551	2120	14980	29350	4630	266	271
a	152	140	179	204	181	205	157	221	319	403	379	261

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1996, BY WATER YEAR (WY)

MEAN	10.4	10.1	7.57	5.94	5.69	9.01	35.6	207	376	90.2	8.83	6.74
MAX	27.7	19.5	12.0	10.7	9.37	16.1	59.0	358	570	331	19.5	18.0
(WY)	1983	1983	1996	1970	1970	1986	1987	1969	1984	1995	1983	1992
MIN	2.52	3.07	2.55	2.46	3.42	5.02	8.21	85.5	124	9.82	.86	.73
(WY)	1993	1989	1989	1989	1989	1984	1983	1983	1987	1987	1994	1994

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1967 - 1996

ANNUAL TOTAL	29596.29		27900.9									
ANNUAL MEAN	81.1		76.2									
HIGHEST ANNUAL MEAN										98.6		1984
LOWEST ANNUAL MEAN										41.6		1989
HIGHEST DAILY MEAN	620	Jun 16		716	Jun 21		814		Jun 21	1968		
LOWEST DAILY MEAN	.77	Sep 16		1.6	Aug 13		.01		Aug 7	1972		
ANNUAL SEVEN-DAY MINIMUM	1.2	Sep 12		1.8	Aug 11		.11		Aug 7	1972		
INSTANTANEOUS PEAK FLOW				990	Jun 21		1110		Jun 20	1968		
INSTANTANEOUS PEAK STAGE				3.10	Jun 21		3.14		Jun 20	1968		
ANNUAL RUNOFF (AC-FT)	58700		55340									
10 PERCENT EXCEEDS	410		314				240					
50 PERCENT EXCEEDS	13		12				9.8					
90 PERCENT EXCEEDS	3.0		3.0				3.7					

e-Estimated.

a-Diversions, in acre-feet, by Mount Werner Water and Sanitation District, and City of Steamboat Springs.

## 09239500 YAMPA RIVER AT STEAMBOAT SPRINGS, CO

LOCATION.--Lat 40°29'01", long 106°49'54", in NW<sup>1/4</sup>NE<sup>1/4</sup> sec.17, T.6 N., R.84 W., Routt County, Hydrologic Unit 14050001, on left bank 30 ft upstream from Fifth Street Bridge in Steamboat Springs and 0.6 mi upstream from Soda Creek.

DRAINAGE AREA.--604 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1904 to October 1906, October 1909 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 764: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 6,695.47 ft above sea level. Prior to May 8, 1905, nonrecording gage at bridge 0.2 mi upstream at datum 4.16 ft, higher. May 8, 1905 to Oct. 31, 1906, nonrecording gage on bridge 30 ft upstream at datum 0.44 ft, higher. Mar. 8, 1910 to Sept. 11, 1934, water-stage recorder on right bank, 60 ft downstream, at datum 0.44 ft, higher. Sept. 11, 1934 to Aug. 17, 1988, water-stage recorder on right bank, 60 ft downstream, at present datum.

REMARKS.--No estimated daily discharges. Records good. Natural flow of stream affected by two diversions for irrigation to Egeria Creek in Colorado River basin, one diversion for irrigation from Trout Creek drainage to Oak Creek drainage, irrigation of about 19,700 acres upstream from station, and by storage in Stillwater, Yampa, YamColo, Stagecoach, and Catamount Reservoirs, (total capacity 56,895 acre-ft) and pumping of water to ski area for snow making during winter. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	166	167	158	128	138	112	399	979	2350	1060	195	83
2	181	143	150	126	137	106	511	1020	2470	988	179	82
3	176	144	147	131	132	106	620	1120	2610	944	172	85
4	200	142	146	136	142	108	681	1300	2830	875	160	84
5	189	141	147	134	162	113	751	1510	3030	864	151	87
6	182	147	152	128	154	106	821	1750	3220	787	142	96
7	182	144	151	129	128	108	926	1900	3180	744	132	100
8	184	144	149	132	129	126	1100	1980	3170	632	127	96
9	179	180	146	131	124	126	1440	2150	3270	551	120	94
10	181	166	146	127	118	130	1620	2310	3360	506	119	94
11	184	156	142	126	114	143	1810	2330	3350	473	118	96
12	206	154	146	132	109	158	1610	2530	3170	410	116	101
13	222	173	153	131	103	157	1490	2730	2940	360	114	106
14	189	201	148	131	106	173	1200	2900	2810	317	114	114
15	184	187	140	131	112	189	1040	3060	2580	282	113	112
16	189	181	139	132	101	199	1060	3280	2500	261	113	113
17	184	175	137	125	102	186	1190	3710	2500	254	111	116
18	180	170	131	114	104	177	1110	3810	2360	286	111	124
19	178	166	134	125	105	182	1110	3700	2270	317	111	125
20	165	168	133	134	106	200	951	3480	2130	287	108	128
21	163	184	130	136	106	225	866	3080	2610	265	104	124
22	168	178	132	132	116	244	816	2880	2760	244	112	131
23	160	162	124	132	109	265	867	2690	2210	223	120	135
24	159	159	125	139	108	244	1380	2570	1920	212	100	138
25	164	157	126	132	109	222	2020	2740	1720	209	93	151
26	163	155	127	130	111	223	1690	2930	1580	206	94	147
27	159	154	129	134	111	233	1600	2620	1470	202	97	135
28	141	155	133	142	106	211	1430	2370	1370	200	96	133
29	140	156	128	152	109	219	1190	2240	1250	228	94	146
30	142	156	128	146	---	261	1020	2260	1140	253	89	147
31	153	---	132	145	---	322	---	2260	---	217	85	--
TOTAL	5413	4865	4309	4103	3411	5574	34319	76189	74130	13657	3710	3423
MEAN	175	162	139	132	118	180	1144	2458	2471	441	120	114
MAX	222	201	158	152	162	322	2020	3810	3360	1060	195	151
MIN	140	141	124	114	101	106	399	979	1140	200	85	82
AC-FT	10740	9650	8550	8140	6770	11060	68070	151100	147000	27090	7360	6790

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 1996, BY WATER YEAR (WY)

MEAN	134	125	103	98.9	101	165	657	1724	1810	369	151	106
MAX	357	195	161	160	165	433	1675	3350	3771	1684	387	238
(WY)	1962	1947	1938	1938	1921	1910	1962	1984	1917	1957	1984	1961
MIN	49.6	69.3	56.6	45.0	50.0	73.5	236	702	141	16.2	40.5	19.5
(WY)	1935	1978	1916	1916	1916	1964	1995	1977	1934	1934	1931	1944

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1910 - 1996
ANNUAL TOTAL	176417	233103	
ANNUAL MEAN	483	637	
HIGHEST ANNUAL MEAN			463
LOWEST ANNUAL MEAN			821
HIGHEST DAILY MEAN	3410	Jun 16	1977
LOWEST DAILY MEAN	a <sup>76</sup>	Jan 18	169
ANNUAL SEVEN-DAY MINIMUM	80	Jan 16	1944
INSTANTANEOUS PEAK FLOW		3930	c <sup>6820</sup>
INSTANTANEOUS PEAK STAGE		6.89	d <sup>7.08</sup>
ANNUAL RUNOFF (AC-FT)	349900	462400	335500
10 PERCENT EXCEEDS	1690	2350	1510
50 PERCENT EXCEEDS	155	160	135
90 PERCENT EXCEEDS	85	108	75

a--Also occurred Feb 15.

b--Also occurred Sep 10-13, 1944.

c--Present datum, from rating curve extended above 4800 ft<sup>3</sup>/s.

d--Maximum gage height, 7.12 ft, Jun 25, 1984.

## GREEN RIVER BASIN

**09242500 ELK RIVER NEAR MILNER, CO**

LOCATION.--Lat 40°30'53", long 106°57'12", in NW<sup>1/4</sup>NW<sup>1/4</sup> sec.5, T.6 N., R.85 W., Routt County, Hydrologic Unit 14050001, on left bank 30 ft downstream from bridge on County Road 44, 2.5 mi upstream from mouth, and 3.2 mi east of Milner.

DRAINAGE AREA.--415 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--May 1904 to September 1909, October 1920 to September 1927, (published as "near Trull"). April 1990 to current year. Monthly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,590 ft above sea level, from topographic map. May 1904 to September 1909, nonrecording gage, at different datum, October 1910 to September 1927, water-stage recorder at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 6,500 acres upstream from and about 1,000 acres downstream from station. Natural flow of stream affected by storage in Lester Creek Reservoir (known also as Pearl Lake), capacity, 5,660 acre-ft, since 1963, and Steamboat Lake, capacity, 23,060 acre-ft, since 1968.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	214	199	156	e120	e128	e120	e260	969	1870	1530	240	60
2	188	142	144	e120	e128	e120	387	e995	1850	1510	220	56
3	169	124	148	e120	e130	e120	528	e1050	2040	1410	257	54
4	193	131	136	e125	e130	e115	554	e1150	2240	1330	277	51
5	195	128	128	e130	e128	e115	555	e1250	2560	1340	234	52
6	167	135	136	e130	e132	e115	627	e1450	2990	1410	199	62
7	173	138	134	e125	e132	e110	727	e1650	2790	1190	183	66
8	181	134	124	e120	e128	e110	912	e1860	2900	1030	173	56
9	171	143	124	e125	e125	e110	1270	e2110	2920	912	164	50
10	163	143	136	e125	e125	e110	1460	e2360	2870	805	150	44
11	163	121	127	e120	e125	e110	1450	e2510	3040	739	143	42
12	174	155	143	e115	e120	e115	1280	e3060	2880	668	134	43
13	187	167	150	e110	e120	e115	1160	e3190	2860	599	125	46
14	161	247	135	e110	e122	e115	847	3620	2740	548	118	48
15	154	225	108	e100	e120	e100	771	3890	2380	495	120	53
16	149	191	111	e105	e118	e105	920	4050	2200	464	114	53
17	146	176	131	e100	e115	e105	1100	4620	2250	543	99	51
18	141	161	120	e95	e120	e100	932	4180	2270	536	95	57
19	137	155	e115	e95	e122	e95	831	3730	2310	539	109	60
20	119	159	e120	e105	e125	e100	688	3000	2310	441	112	63
21	118	140	e115	e105	e130	e105	651	2500	3270	391	106	68
22	135	148	e110	e110	e132	e110	597	2470	3240	355	101	75
23	122	140	e100	e100	e135	e110	717	2510	2640	319	98	98
24	110	130	e100	e100	e132	e100	1250	2260	2270	289	88	101
25	128	132	e100	e100	e130	e100	1670	2390	2130	270	81	127
26	140	134	e105	e110	e130	e105	1410	2940	1990	250	78	151
27	133	130	e110	e105	e130	e105	1410	2260	2020	232	77	116
28	123	119	e115	e115	e135	e115	1240	2070	1830	223	77	101
29	125	131	e115	e115	e130	e125	1030	1900	1680	288	75	111
30	131	150	e115	e120	--	e160	1010	1930	1560	332	67	117
31	193	--	e120	e125	--	e210	--	1920	--	274	65	--
TOTAL	4803	4528	3831	3500	3677	3550	28244	75844	72900	21262	4179	2132
MEAN	155	151	124	113	127	115	941	2447	2430	686	135	71.1
MAX	214	247	156	130	135	210	1670	4620	3270	1530	277	151
MIN	110	119	100	95	115	95	260	969	1560	223	65	42
AC-FT	9530	8980	7600	6940	7290	7040	56020	150400	144600	42170	8290	4230

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1905 - 1996, BY WATER YEAR (WY)

MEAN	142	111	90.5	87.6	89.9	170	721	2085	2221	703	170	102
MAX	424	234	125	120	145	320	1214	3977	3824	1940	445	173
(WY)	1919	1919	1926	1921	1921	1916	1919	1920	1917	1917	1912	1916
MIN	58.9	58.0	48.8	51.5	45.9	52.0	377	940	767	160	59.6	33.1
(WY)	1993	1991	1993	1992	1991	1991	1995	1990	1992	1994	1994	1994

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1905 - 1996
ANNUAL TOTAL	245062	228450	
ANNUAL MEAN	671	624	566
HIGHEST ANNUAL MEAN			886
LOWEST ANNUAL MEAN			282
HIGHEST DAILY MEAN	4110	Jun 6	5350
LOWEST DAILY MEAN	e44	Feb 16	a17
ANNUAL SEVEN-DAY MINIMUM	45	Feb 11	Sep 12 1994
INSTANTANEOUS PEAK FLOW		4760	b21
INSTANTANEOUS PEAK STAGE		6.83	Sep 7 1994
ANNUAL RUNOFF (AC-FT)	486100	453100	b5530
10 PERCENT EXCEEDS	2520	2250	Jun 15 1921
50 PERCENT EXCEEDS	166	135	c6.35
90 PERCENT EXCEEDS	50	99	Jun 15 1921

e-Estimated.

a-A lesser discharge may have occurred during periods of no gage-height record prior to Sep 20, 1919.

b-Site and datum then in use.

c-Maximum gage height, 6.83 ft, May 17, 1996.

GREEN RIVER BASIN

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**09242500 ELK RIVER NEAR MILNER, CO--Continued**

## **WATER-QUALITY RECORDS**

PERIOD OF RECORD.--August 1975 to September 1976 and April 1990 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

		DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS NA)	
DATE	TIME	PER SECOND								
JAN 19...	1000	95	133	7.8	0.0	10.3	57	17	3.6	3.9
APR 09...	1100	1150	215	7.8	3.0	11.4	92	24	7.7	6.7
JUN 26...	0915	2000	36	7.2	8.0	9.9	14	4.2	0.8	1.0
SEP 09...	1600	50	122	8.1	18.5	9.2	53	16	3.1	3.2
		SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- TION SOLVED (MG/L AS K)	ALKA- LINITY LAB SOLVED (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLID(S, SUM OF CONSTI- TUENTS, DIS- SOLVED (TONS PER AC-FT)	SOLID(S, DIS- SOLVED (TONS PER DAY)
JAN 19...	0.2	1.0	53	11	1.6	0.2	11	82	0.11	21.0
APR 09...	0.3	2.2	70	32	1.6	0.2	9.5	127	0.17	395
JUN 26...	0.1	0.5	15	2.0	0.2	0.1	4.8	23	0.03	124
SEP 09...	0.2	1.2	50	9.4	1.2	0.4	8.0	73	0.10	9.82
		NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + DIS- ORGANIC SOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)			
JAN 19...	<0.01	0.16	0.02	<0.2	<0.01	<0.01	<0.01			
APR 09...	<0.01	0.25	0.02	0.4	0.03	0.02				
JUN 26...	0.01	0.06	0.02	<0.2	<0.01	<0.01				
SEP 09...	<0.01	0.06	<0.02	<0.2	<0.01	<0.01				
		CADMIUM DIS- SOLVED (UG/L AS CD)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	ZINC, DIS- SOLVED (UG/L AS ZN)	
JAN 19...	<1	3	340	1	10	20	<0.1	<1	<0.2	<10
APR 09...	<1	2	2400	<1	110	43	<0.1	1	<0.2	<3
JUN 26...	<1	2	150	<1	<10	6	<0.1	<1	<0.2	<3
SEP 09...	<1	2	110	<1	<10	5	<0.1	<1	<0.2	13

**09242500 ELK RIVER NEAR MILNER, CO--Continued**

## MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## 09243700 MIDDLE CREEK NEAR OAK CREEK, CO

LOCATION.--Lat 40°23'08", long 106°59'33", in SW<sup>1/4</sup>SW<sup>1/4</sup> sec.13, T.5 N., R.86 W., Routt County, Hydrologic Unit 14050001, on left bank 1.1 mi upstream from mouth of Foidel Creek and 13.5 mi northwest of Oak Creek.

DRAINAGE AREA.--23.5 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1975 to September 1981, April 1982 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,720 ft above sea level, from topographic map.

REMARKS.-- Records good except for estimated daily discharges, which are poor. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	1.4	e.80	e.68	e.52	e.70	2.2	e87	12	2.7	2.5	3.1
2	.66	1.2	e.80	e.68	e.52	e.70	2.2	e84	11	2.4	2.7	3.1
3	.60	1.1	e.82	e.66	e.52	e.70	3.9	e80	11	2.2	3.3	2.0
4	1.2	1.1	e.82	e.66	e.52	e.70	14	e78	10	2.2	3.3	1.3
5	1.5	.80	e.80	e.66	e.52	e.70	12	e77	11	2.3	2.6	1.0
6	1.2	.78	e.78	e.68	e.50	e.80	14	e76	10	2.1	2.3	1.1
7	1.1	.72	e.78	e.68	e.50	e.80	13	e75	9.1	2.2	2.1	1.0
8	1.0	.69	e.80	e.70	e.50	e.80	18	71	8.0	2.1	1.7	.86
9	.89	.90	e.80	e.68	e.50	e.90	32	67	7.6	1.9	1.6	.76
10	.79	1.3	e.82	e.66	e.50	e.80	37	64	7.4	1.9	1.5	.63
11	.76	1.2	e.82	e.64	e.50	e.90	50	55	7.5	3.2	1.4	.53
12	.73	1.1	e.80	e.62	e.50	e.90	38	50	7.0	4.3	1.3	.52
13	.73	1.5	e.80	e.60	e.50	e.90	36	44	6.8	3.9	1.3	.54
14	.80	1.8	e.80	e.60	e.54	e.95	21	40	6.5	3.6	4.1	.55
15	.77	1.6	e.78	e.58	e1.0	18	35	6.3	3.2	5.4	.53	
16	.77	1.5	e.76	e.58	e.60	e1.1	25	31	6.5	3.0	3.4	.48
17	.73	1.3	e.75	e.58	e.60	e1.2	36	29	5.9	3.4	2.2	.43
18	.71	1.2	e.75	e.56	e.60	e1.3	36	24	5.6	4.1	2.1	.46
19	.71	1.2	e.75	e.56	e.60	e1.4	35	22	5.1	3.7	2.5	.41
20	1.1	1.0	e.75	e.58	e.60	e1.4	22	21	4.9	3.4	3.1	.46
21	1.1	1.0	e.73	e.58	e.60	e1.4	20	19	6.5	3.1	3.2	.45
22	1.2	1.0	e.72	e.56	e.60	e1.3	17	17	8.4	3.1	2.2	.44
23	.84	.93	e.72	e.56	e.60	e1.4	23	16	5.7	2.4	3.1	.42
24	.69	.90	e.72	e.56	e.60	1.5	72	16	4.6	2.9	4.3	.47
25	.77	1.0	e.72	e.54	e.60	3.1	128	18	4.2	2.4	3.7	.56
26	.90	.96	e.70	e.54	e.60	2.4	117	19	3.9	2.6	3.8	.61
27	.76	e.94	e.70	e.56	e.60	2.2	117	16	4.0	2.6	3.2	.59
28	.69	e.92	e.70	e.56	e.60	2.2	111	15	4.8	2.5	2.9	.51
29	.68	e.88	e.70	e.54	e.60	2.2	e97	16	4.0	2.1	4.4	.49
30	.70	e.84	e.68	e.54	---	2.2	e90	13	3.3	2.2	3.9	.46
31	.71	---	e.68	e.54	---	2.2	---	12	---	1.9	3.0	--
TOTAL	26.79	32.76	23.55	18.72	16.12	40.75	1257.3	1287	208.6	85.6	88.1	24.76
MEAN	.86	1.09	.76	.60	.56	1.31	41.9	41.5	6.95	2.76	2.84	.83
MAX	1.5	1.8	.82	.70	.60	3.1	128	87	12	4.3	5.4	3.1
MIN	.60	.69	.68	.54	.50	.70	2.2	12	3.3	1.9	1.3	.41
AC-FT	53	65	47	37	32	81	2490	2550	414	170	175	49

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1996, BY WATER YEAR (WY)

MEAN	.42	.61	.56	.53	.73	1.89	12.0	23.2	5.38	1.72	1.12	.31
MAX (WY)	1.36	1.98	1.83	1.85	2.46	7.90	41.9	98.2	26.1	5.89	9.06	1.21
MIN (WY)	.000	.000	.000	.000	.000	.67	1.01	1.00	.49	.092	.000	.000
	1978	1978	1978	1977	1978	1991	1977	1981	1990	1989	1977	1976

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1976 - 1996
ANNUAL TOTAL	1793.05	3110.05	
ANNUAL MEAN	4.91	8.50	4.06
HIGHEST ANNUAL MEAN			13.2
LOWEST ANNUAL MEAN			.50
HIGHEST DAILY MEAN	31	May 17	297 May 14 1984
LOWEST DAILY MEAN	.08	Sep 17	<sup>a</sup> .00 Oct 1 1975
ANNUAL SEVEN-DAY MINIMUM	.21	Sep 12	.00 Oct 1 1975
INSTANTANEOUS PEAK FLOW		b160 Apr 24	c329 May 14 1984
INSTANTANEOUS PEAK STAGE		4.34 Apr 24	d4.08 May 14 1984
ANNUAL RUNOFF (AC-FT)	3560	6170	2940
10 PERCENT EXCEEDS	19	22	10
50 PERCENT EXCEEDS	1.0	1.2	.72
90 PERCENT EXCEEDS	.33	.56	.00

e-Estimated.

a-No flow many days most years.

b-From rating curve extended above 75 ft<sup>3</sup>/s.

c-From rating curve extended above 77 ft<sup>3</sup>/s.

d-Maximum gage height, 4.34 ft, Apr 24, 1996.

## GREEN RIVER BASIN

**09243800 FOIDEL CREEK NEAR OAK CREEK, CO**

LOCATION.--Lat 40°20'45", long 107°05'04", in NW<sup>1/4</sup>SW<sup>1/4</sup> sec.31, T.5 N., R.86 W., Routt County, Hydrologic Unit 14050001, on right bank 2.3 mi downstream from Reservoir No. 1, 6.9 mi upstream from mouth, and 8.7 mi northwest of Oak Creek.

DRAINAGE AREA.--8.61 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1975 to October 1981, April 1982 to September 1983, October 1984 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,880 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharge, which are poor. Natural flow of stream effected by Reservoir No. 1, which is 2.3 mi upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.97	.65	.90	e.26	.41	.49	21	24	5.7	2.6	1.2	.69
2	.83	.54	.53	e.30	.36	.35	12	22	5.8	2.8	1.2	.72
3	.94	.50	.33	e.26	.36	.44	27	28	5.5	2.5	1.2	.72
4	.98	.43	.38	e.24	.19	.56	21	35	5.5	2.4	1.1	.71
5	.99	.42	.49	e.22	.38	.52	12	49	5.5	2.9	1.1	.70
6	.72	.35	.73	e.20	.37	1.2	13	40	5.3	2.5	1.0	.77
7	.65	.31	.84	e.24	.38	1.4	18	23	4.2	2.3	.99	.83
8	.50	.34	.76	e.20	.60	5.1	23	23	4.2	1.9	.86	.75
9	.46	.54	.49	e.24	.47	2.7	35	17	3.8	1.8	.74	.71
10	.44	.70	.45	e.26	.37	.79	28	18	4.4	1.8	.74	.54
11	.45	.78	.52	e.20	.24	.60	30	15	4.7	1.7	.64	.49
12	.38	.46	.44	.17	.25	1.5	30	14	4.0	1.6	.53	.52
13	.42	.71	.43	.14	.33	1.3	21	13	3.9	1.6	.48	.57
14	.51	1.2	.58	.26	.51	.76	16	20	3.2	1.5	.59	.58
15	.52	.84	.69	.19	.37	1.6	21	16	3.0	1.5	.68	.60
16	.39	1.1	.35	.24	.32	3.9	22	16	2.9	1.6	.72	.57
17	.90	1.0	.23	.17	.32	4.4	22	10	3.7	1.5	.74	.53
18	.37	1.0	.24	.12	.46	3.6	23	10	4.2	1.5	.75	.52
19	.30	1.3	.19	.24	.33	2.2	14	12	3.4	1.5	.81	.53
20	.49	.93	.17	.25	.23	1.5	11	10	3.3	1.4	.77	.59
21	.33	1.2	.23	.18	.22	3.5	14	9.1	3.4	1.3	.76	.57
22	.37	1.3	.14	.28	.40	5.0	11	10	3.6	1.3	.73	.52
23	.41	1.2	.17	.25	.63	7.2	17	14	3.2	1.3	.75	.59
24	.40	1.3	.28	.29	.81	14	25	16	3.1	1.3	.74	.67
25	.49	.99	e.30	.32	1.5	19	41	9.1	3.0	1.2	.71	.71
26	.35	1.3	e.30	.35	2.1	20	42	12	3.0	1.2	.68	.64
27	.37	1.3	e.34	.28	1.6	9.3	36	9.4	2.7	1.2	.70	.58
28	.35	1.2	e.30	.34	.43	9.3	37	8.2	3.0	1.2	.77	.55
29	.43	1.2	e.36	.27	.41	13	26	8.1	3.3	1.4	.73	.52
30	.42	1.3	e.40	.35	--	8.2	35	6.3	2.7	1.4	.67	.50
31	.56	---	e.30	.45	--	17	--	5.9	--	1.3	.64	---
TOTAL	16.69	26.39	12.86	7.76	15.35	160.41	704	523.1	117.2	53.0	24.72	18.49
MEAN	.54	.88	.41	.25	.53	5.17	23.5	16.9	3.91	1.71	.80	.62
MAX	.99	1.3	.90	.45	2.1	20	42	49	5.8	2.9	1.2	.83
MIN	.30	.31	.14	.12	.19	.35	11	5.9	2.7	1.2	.48	.49
AC-FT	33	52	26	15	30	318	1400	1040	232	105	49	37

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1996, BY WATER YEAR (WY)

MEAN	.50	.52	.41	.41	.75	1.91	6.60	4.86	1.68	.78	.42	.29
MAX	3.37	2.24	1.11	1.13	6.34	7.90	23.5	16.9	5.31	2.09	1.43	.80
(WY)	1986	1986	1986	1986	1986	1986	1996	1996	1995	1995	1985	1986
MIN	.000	.000	.000	.000	.000	.000	.11	.077	.024	.000	.000	.000
(WY)	1976	1976	1976	1977	1977	1978	1977	1977	1977	1977	1976	1976

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1976 - 1996
ANNUAL TOTAL	659.38	1679.97	
ANNUAL MEAN	1.81	4.59	1.59
HIGHEST ANNUAL MEAN			4.59
LOWEST ANNUAL MEAN			.022
HIGHEST DAILY MEAN	29	Apr 30	49 May 5 1996
LOWEST DAILY MEAN	.05	Jan 24	<sup>a</sup> .00 Oct 1 1975
ANNUAL SEVEN-DAY MINIMUM	.15	Mar 4	.00 Oct 1 1975
INSTANTANEOUS PEAK FLOW		b <sub>65</sub> May 5	b <sub>65</sub> May 5 1996
INSTANTANEOUS PEAK STAGE		4.47 May 5	4.47 May 5 1996
ANNUAL RUNOFF (AC-FT)	1310	3330	1150
10 PERCENT EXCEEDS	5.4	16	4.2
50 PERCENT EXCEEDS	.77	.81	.54
90 PERCENT EXCEEDS	.22	.28	.00

e-Estimated.

a-No flow many days most years.

b-From rating curve extended above 23 ft<sup>3</sup>/s.

## 09243900 FOIDEL CREEK AT MOUTH, NEAR OAK CREEK, CO

LOCATION.--Lat 40°23'25", long 106°59'39", in SE<sup>1/4</sup>SE<sup>1/4</sup> sec.14, T.5 N., R.86 W., Routt County, Hydrologic Unit 14050001, on left bank 1.0 mi upstream from mouth and 13.6 mi northwest of Oak Creek.

DRAINAGE AREA.--17.5 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1975 to September 1981, June 1982 to current year.

REVISED RECORDS.--WDR CO-78-3: 1976 (M), 1976.

GAGE.--Water-stage recorder. Elevation of gage is 6,730 ft above sea level, from topographic map. Prior to Feb. 19, 1992, at site 600 ft downstream, at same datum.

REMARKS.-- Records good except for estimated daily discharges, which are poor. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	e1.6	e2.1	e.70	.96	e2.3	32	32	7.2	e3.6	.45	e.30
2	1.5	e1.5	e2.1	e.70	1.0	e2.4	35	32	6.0	e3.7	.38	e.40
3	1.5	e1.5	e2.0	e.77	1.0	e2.5	32	31	e5.5	e3.5	.42	e.40
4	1.6	e1.5	e2.0	.81	1.1	e2.6	36	31	e5.0	e3.5	.34	e.40
5	1.5	e1.4	e2.0	.85	.96	2.6	32	31	e4.7	e4.0	.25	e.50
6	1.4	e1.4	e1.9	.90	.96	2.4	33	32	e4.5	e4.5	.20	e.55
7	1.2	e1.4	e1.9	.87	.94	2.2	35	32	e4.0	e4.8	.20	e.50
8	1.1	e1.4	e1.9	.91	.95	2.4	44	31	e3.8	e4.8	.10	e.45
9	1.1	e1.5	e1.9	.93	.97	2.3	64	30	e3.6	e4.6	.10	e.40
10	1.1	e1.6	e1.9	.93	1.0	2.3	66	31	e3.4	e3.6	.10	e.40
11	1.2	e1.6	e1.8	.99	1.1	2.4	74	27	e3.8	e2.6	.05	e.45
12	1.0	e1.5	e1.8	1.0	1.2	2.6	68	26	e3.8	e2.3	.05	.41
13	1.2	e1.6	e1.8	.97	1.2	2.6	55	24	e3.6	e2.0	.04	.52
14	1.2	e1.7	e1.8	.97	1.2	2.6	38	23	e3.5	e1.6	.04	.49
15	1.3	e1.6	e1.8	.93	1.2	2.6	38	23	e3.2	e1.0	.07	.59
16	1.4	e1.7	e1.8	.89	1.3	2.7	44	21	e3.1	.98	.31	.72
17	e1.5	e1.7	e1.8	.90	1.3	2.7	46	21	e3.7	.89	.15	.64
18	e1.5	e1.8	e1.7	.93	1.3	2.8	41	19	e3.8	.96	.18	.44
19	e1.4	e2.0	e1.7	.93	1.3	3.0	40	18	e3.7	.91	.43	.45
20	e1.6	e1.8	e1.7	.91	1.2	3.2	33	18	e3.7	.79	e.40	.62
21	e1.4	e2.0	e1.6	.94	1.2	3.5	33	15	e3.8	.62	e.40	.49
22	e1.5	e2.0	e1.6	.93	2.2	3.8	30	14	e4.0	.56	e.40	.48
23	e1.5	e2.0	e1.5	.93	2.8	20	31	13	e3.8	.65	e.30	.45
24	e1.5	e2.0	e1.5	.93	1.3	44	37	14	e3.7	1.0	e.30	.72
25	e1.5	e1.9	e1.4	.93	1.5	44	43	18	e3.6	1.3	e.30	.73
26	e1.4	e2.0	e1.3	.94	1.5	26	36	22	e3.6	1.1	e.30	.77
27	e1.4	e2.0	e1.2	.97	2.3	14	36	17	e3.5	.83	e.40	.61
28	e1.4	e2.0	e1.1	2.0	e2.1	11	35	17	e3.6	.78	e.40	.45
29	e1.5	e2.0	e1.0	1.0	e2.2	13	34	17	e3.8	1.1	e.40	.17
30	e1.5	e2.1	e.90	.97	---	19	32	12	e3.6	.89	e.40	.37
31	e1.5	---	e.80	.95	---	25	---	8.9	---	.61	e.30	---
TOTAL	43.1	51.8	51.3	29.28	39.24	274.5	1233	700.9	120.6	64.07	8.16	14.87
MEAN	1.39	1.73	1.65	.94	1.35	8.85	41.1	22.6	4.02	2.07	.26	.50
MAX	1.7	2.1	2.1	2.0	2.8	44	74	32	7.2	4.8	.45	.77
MIN	1.0	1.4	.80	.70	.94	2.2	30	8.9	3.1	.56	.04	.17
AC-FT	85	103	102	58	78	544	2450	1390	239	127	16	29

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1996, BY WATER YEAR (WY)

MEAN	.80	1.02	.94	.93	1.48	5.11	14.3	9.01	2.97	1.42	.67	.43
MAX	4.05	5.03	5.96	6.01	10.4	17.0	41.1	34.9	10.8	3.68	2.84	1.77
(WY)	1986	1986	1986	1986	1986	1986	1996	1984	1984	1984	1983	1984
MIN	.000	.000	.000	.000	.000	.39	.41	.043	.000	.000	.000	.000
(WY)	1976	1977	1976	1977	1978	1977	1977	1977	1977	1976	1976	1976

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1976 - 1996
ANNUAL TOTAL	1000.05	2630.82	
ANNUAL MEAN	2.74	7.19	3.25
HIGHEST ANNUAL MEAN			7.63
LOWEST ANNUAL MEAN			.070
HIGHEST DAILY MEAN	28	Apr 30	79
LOWEST DAILY MEAN	.24	Sep 4	b .00
ANNUAL SEVEN-DAY MINIMUM	.30	Aug 31	Oct 1 1975
INSTANTANEOUS PEAK FLOW		c .06 Aug 9	Oct 1 1975
INSTANTANEOUS PEAK STAGE		c .90 Apr 11	d .90 Apr 11 1996
ANNUAL RUNOFF (AC-FT)	1980	5220	6.43 Apr 11 1996
10 PERCENT EXCEEDS	6.8	31	2350
50 PERCENT EXCEEDS	1.5	1.6	8.2
90 PERCENT EXCEEDS	.68	.41	.96
			.00

e-Estimated.

a-Also occurred Aug 14.

b-No flow many days, most years.

c-From rating curve extended above 31.9 ft<sup>3</sup>/s.

d-Also occurred Apr 22, 1980.

## GREEN RIVER BASIN

**09243900 FOIDEL CREEK AT MOUTH, NEAR OAK CREEK, CO--Continued****PRECIPITATION RECORDS**

PERIOD OF RECORD.--July 1978 to current year.

INSTRUMENTATION.--Belfort weighing bucket rain-gage.

REMARKS.--Unpublished rainfall data for water years 1978-86 are available in district office.

EXTREMES FOR CURRENT YEAR.--Maximum daily precipitation, 0.79 inches, Jan. 24.

## RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.41	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.60	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.35	.00	.00	.00	.00	.00	.00	.00	.00
4	.68	.00	.00	.05	.00	.00	.00	.00	.00	.05	.00	.00
5	.00	.00	.12	.13	.00	.00	.00	.00	.00	.00	.00	.10
6	.00	.00	.05	.15	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.08	.00	.00	.02	.39	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.32	.00	.00	.00	.00	.15	.20	.00	.00	.00	.00
10	.00	.10	.00	.00	.00	.01	.00	.00	.08	.00	.00	.00
11	.00	.22	.00	.24	.24	.00	.00	.00	.02	.00	.00	.00
12	.00	.00	.12	.06	.15	.05	.00	.00	.00	.00	.00	.00
13	.00	.18	.06	.21	.39	.00	.00	.00	.00	.00	.00	.09
14	.00	.12	.00	.12	.35	.00	.13	.00	.00	.00	.00	.09
15	.00	.00	.00	.24	.65	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.09	.02	.38	.09	.00	.00	.00	.00	.00
17	.00	.00	.00	.14	.00	.03	.00	.07	.00	.33	.03	.08
18	.00	.00	.00	.11	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.19	.07	.04	.00	.23	.00	.00	.12	.14
20	.00	.00	.00	.04	.01	.00	.00	.00	.24	.00	.01	.00
21	.00	.00	.00	.15	.00	.00	.00	.00	.49	.00	.00	.00
22	.16	.00	.00	.00	.00	.07	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.03	.00	.00	.17	.00	.00	.00	.27
24	.00	.00	.00	.79	.00	.00	.00	.05	.00	.00	.00	.03
25	.00	.00	.06	.32	.06	.00	.00	.68	.00	.00	.00	.30
26	.00	.11	.46	.34	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.10	.09	.32	.00	.00	.00	.10	.00	.00	.00	.00
28	.00	.36	.07	.32	.00	.00	.00	.12	.00	.00	.00	.00
29	.00	.14	.09	.32	.00	.00	.00	.00	.00	.72	.00	.00
30	.00	.00	.08	.51	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.27	---	.00	---	.06	---	.00	.00	---
TOTAL	0.84	2.06	1.28	6.11	1.97	0.60	0.76	1.68	0.83	1.10	0.16	1.10

**09245000 ELKHEAD CREEK NEAR ELKHEAD, CO**

LOCATION.--Lat 40°40'11", long 107°17'04", in NW<sup>1/4</sup>NE<sup>1/4</sup> sec.8, T.8 N., R.88 W., Routt County, Hydrologic Unit 14050001, on right bank 0.2 mi upstream from North Fork Elkhead Creek, 4.5 mi northwest of Elkhead, and 12 mi north of Hayden.

DRAINAGE AREA.--64.2 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--January to November 1910 and May to November 1920 (monthly discharge only, published in WSP 1313; published as "at Hayes Ranch"), April 1953 to current year.

REVISED RECORDS.--WSP 1733: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,845 ft above sea level, from topographic map. Prior to Nov. 30, 1920, nonrecording gage or water-stage recorder 675 ft upstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. No diversion upstream from station.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	e5.1	e6.6	e6.2	e6.3	e5.8	e41	227	167	21	9.0	5.9
2	e8.2	e5.0	e6.5	e5.5	e6.4	e5.9	42	275	150	20	8.7	5.5
3	e8.1	e5.0	e6.7	e5.7	e6.3	e5.7	45	368	140	18	9.8	5.3
4	e8.1	e5.0	e6.8	e5.4	e6.2	e6.2	47	465	131	17	12	5.1
5	e8.0	e4.7	e7.0	e5.3	e6.7	e6.1	48	564	125	16	10	5.7
6	e7.8	e4.5	e6.5	e5.2	e6.5	e6.5	50	663	116	16	8.9	7.4
7	e8.0	e4.6	e6.6	e5.4	e6.3	e6.3	52	630	106	15	8.5	7.9
8	e8.1	e5.0	e6.7	e5.7	e6.5	e6.1	55	655	97	14	8.2	7.6
9	e7.8	e5.1	e6.3	e5.5	e6.4	e6.8	58	728	91	13	7.9	7.3
10	e7.7	e4.7	e6.0	e5.6	e6.9	e7.1	62	656	85	13	7.7	6.5
11	e7.9	e4.6	e5.8	e5.8	e7.1	e7.3	67	582	80	12	7.4	6.7
12	e7.6	e4.4	e5.7	e6.0	e7.0	e7.2	72	611	75	11	7.4	6.6
13	e7.6	e4.8	e6.0	e6.1	e6.8	e7.5	77	590	70	11	7.3	7.0
14	e7.7	e4.9	e5.6	e6.2	e7.0	e7.9	82	582	65	11	7.1	7.8
15	e7.5	e5.2	e5.7	e6.4	e7.1	e8.3	84	539	60	10	7.0	8.0
16	e7.5	e5.5	e5.7	e6.1	e6.8	e9.1	108	503	56	11	7.0	7.8
17	e6.0	e5.0	e5.4	e6.4	e6.5	e9.9	136	567	51	14	6.9	7.8
18	e6.7	e5.4	e5.3	e6.8	e6.7	e11	115	456	47	12	7.0	8.0
19	e6.8	e6.6	e5.2	e6.5	e6.6	e11	95	389	43	13	6.9	8.1
20	e7.0	e6.7	e5.5	e6.1	e6.4	e12	105	324	40	11	7.5	8.1
21	e7.1	e6.3	e5.4	e6.2	e6.7	e12	73	266	39	9.9	7.2	8.0
22	e6.9	e6.4	e5.1	e5.8	e6.3	e14	80	235	48	9.4	6.9	7.9
23	e6.7	e6.2	e5.5	e5.5	e6.1	e13	76	227	44	9.1	6.9	7.7
24	e6.4	e6.4	e5.7	e5.1	e5.9	e15	193	234	37	9.0	6.6	7.7
25	e6.5	e6.5	e5.5	e5.0	e6.2	e14	402	279	31	8.8	6.1	8.3
26	e6.1	e6.3	e5.4	e5.4	e6.3	e15	364	330	28	8.8	5.9	9.0
27	e5.7	e6.2	e5.8	e5.3	e6.0	e16	356	262	26	8.7	6.5	8.5
28	e5.5	e6.0	e5.9	e5.5	e5.9	e20	289	237	26	8.5	7.4	8.2
29	e5.6	e6.3	e6.0	e5.9	e6.3	e26	e227	234	24	9.5	7.2	8.0
30	e5.0	e6.4	e5.7	e6.3	---	e40	209	204	23	14	6.5	7.9
31	e5.3	---	e6.1	---	e47	---	182	---	10	6.1	---	
TOTAL	218.9	164.8	183.7	180.0	188.2	385.7	3710	13064	2121	384.7	235.5	221.3
MEAN	7.06	5.49	5.93	5.81	6.49	12.4	124	421	70.7	12.4	7.60	7.38
MAX	8.2	6.7	7.0	6.8	7.1	47	402	728	167	21	12	9.0
MIN	5.0	4.4	5.1	5.0	5.9	5.7	41	182	23	8.5	5.9	5.1
AC-FT	434	327	364	357	373	765	7360	25910	4210	763	467	439

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1996, BY WATER YEAR (WY)

MEAN	6.52	6.70	5.83	5.34	5.66	11.1	113	362	119	14.9	4.68	3.67
MAX	25.6	21.9	14.8	13.3	13.4	40.8	316	830	357	60.1	14.4	15.5
(WY)	1987	1987	1987	1987	1974	1986	1962	1984	1957	1995	1984	1984
MIN	1.71	1.45	1.95	1.78	2.20	3.50	16.0	64.4	11.3	.94	.30	.22
(WY)	1978	1961	1992	1977	1959	1955	1970	1977	1977	1977	1961	1955

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1953 - 1996
ANNUAL TOTAL	32338.8	21057.8	
ANNUAL MEAN	88.6	57.5	55.5
HIGHEST ANNUAL MEAN			113
LOWEST ANNUAL MEAN			16.6
HIGHEST DAILY MEAN	836	May 22	1890
LOWEST DAILY MEAN	e2.5	Jan 18	a.00
ANNUAL SEVEN-DAY MINIMUM	3.3	Jan 13	.00
INSTANTANEOUS PEAK FLOW		989	b2850
INSTANTANEOUS PEAK STAGE		5.58	May 20 1984
ANNUAL RUNOFF (AC-FT)	64140	41770	40200
10 PERCENT EXCEEDS	342	196	175
50 PERCENT EXCEEDS	7.9	7.6	6.8
90 PERCENT EXCEEDS	3.7	5.5	2.3

e-Estimated.

a-Also occurred Sep 12-19, 24, 1955, Aug 27-29, 1961, Aug 14-19, 1977.

b-From rating curve extended above 1500 ft<sup>3</sup>/s, on basis of slope-area determination of peak flow.

## GREEN RIVER BASIN

## 09245000 ELKHEAD CREEK NEAR ELKHEAD, CO--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1993 to September 1996 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-	CHARGE,	SPE-			COLI-	E. COLI			MAGNE-
		INST.	CIFIC	CON-	PH	TEMPER-	OXYGEN,	FECAL,	WATER	HARD-	CALCIUM
		CUBIC	DUCT-	(STAND-	ATURE	DIS-	0.7	WHOLE	TOTAL	TOTAL	DIS-
		FEET	DUCT-	ARD	WATER	SOLVED	UM-MF	UREASE	(MG/L)	(MG/L)	SOLVED
		PER	ANCE	UNITS)	(DEG C)	(MG/L)	(COLS./100 ML)	(COL /100 ML)	AS	AS	SOLVED
		SECOND	(US/CM)					CACO3)	CACO3)	(MG/L)	(MG/L)
JAN 18...	1400	6.8	325	8.0	0.0	10.9	K2	K15	150	38	13
MAR 27...	1030	16	394	8.3	0.0	11.3	52	48	170	44	15
JUN 17...	1100	51	173	8.2	13.5	9.4	70	49	75	20	6.1
SEP 09...	1445	7.2	255	8.1	19.0	8.7	52	42	110	29	9.4
SODIUM, DIS- SOLVED (MG/L AS NA)											
DATE		SODIUM	POTAS-	ALKA-		CHLO-	FLUO-	SILICA,	SUM OF	SOLIDIS,	SOLIDIS,
		AD-	SIUM,	LINITY	SULFATE	RIDE,	RIDE,	DIS-	CONSTI-	DIS-	DIS-
		SORP-	DIS-	LAB	DIS-	DIS-	DIS-	SOLVED	TUENTS,	SOLVED	SOLVED
		SOLVED	TION	SOLVED	SOLVED	SOLVED	SOLVED	(MG/L	DIS-	(TONS	(TONS
		RATIO	(MG/L	(MG/L	(MG/L	(MG/L	(MG/L	AS	SOLVED	PER	PER
		AS NA)	AS K)	AS	AS SO4)	AS CL)	AS F)	SIO2)	(MG/L)	AC-FT)	DAY)
JAN 18...	13	0.5	1.4	114	56	0.9	0.2	16	208	0.28	3.82
MAR 27...	16	0.5	1.4	122	83	1.1	0.1	14	249	0.34	10.9
JUN 17...	5.3	0.3	1.0	72	21	1.0	0.1	11	109	0.15	14.9
SEP 09...	9.7	0.4	1.7	115	19	0.7	0.1	10	149	0.20	2.91
NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)											
DATE		NITRO-	NITRO-	NITRO-	NITRO-	PHOS-	PHORUS				
		GEN,	GEN,	GEN,	GEN, AM-	PHORUS	ORTHO,				
		NO2+NO3	AMMONIA	MONIA +	MONIA +	DIS-	DIS-				
		DIS-	DIS-	DIS-	ORGANIC	SOLVED	SOLVED				
		SOLVED	SOLVED	SOLVED	SOLVED	DIS.	SOLVED				
		(MG/L	(MG/L	(MG/L	(MG/L	(MG/L	(MG/L				
		AS N)	AS N)	AS N)	AS N)	AS P)	AS P)				
JAN 18...	<0.01	0.15	<0.02	<0.2	<0.01	<0.01					
MAR 27...	<0.01	0.17	<0.02	<0.2	<0.01	<0.01					
JUN 17...	<0.01	<0.05	0.02	<0.2	<0.01	<0.01					
SEP 09...	<0.01	0.06	<0.02	0.2	<0.01	<0.01					
IRON, CADMIUM DIS- SOLVED (UG/L AS CD)											
DATE		IRON,		LEAD,	TOTAL	MANGA-	MANGA-	SELE-			
		TOTAL	RECOV-	DIS-	RECOV-	NESE,	NESE,	NIUM,			
		LEAD,	DIS-	RECOV-	DIS-	MERCURY	MERCURY	SILVER,			
		SOLVED	SOLVED	SOLVED	SOLVED	DIS-	DIS-	ZINC,			
		(UG/L	(UG/L	(UG/L	(UG/L	DIS-	DIS-	DIS-			
		AS CU)	AS FE)	AS PB)	AS MN)	(UG/L	(UG/L	(UG/L			
		AS	AS	AS	AS	AS MN)	AS HG)	AS AG)			
		CD)	CU)	FE)	MN)		SE)	AG)			
JAN 18...	<1	2	250	<1	<10	10	<0.1	<1	<0.2	<10	
MAR 27...	<1	3	400	<1	20	<10	<0.1	<1	<1	<10	
JUN 17...	<1	2	450	<1	10	4	<0.1	<1	<0.2	<3	
SEP 09...	<1	2	50	<1	<10	<1	<0.1	<1	<0.2	<3	

K-Based on non-ideal colony count.

**09245000 ELKHEAD CREEK NEAR ELKHEAD, CO--Continued**

## MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE,			DIS- CHARGE,				
		INST.	CIFIC	INST.	CIFIC				
		CUBIC FEET	CON- DUCT-	TEMPER- ATURE	CUBIC FEET	CON- DUCT-	TEMPER- ATURE		
		PER SECOND	ANCE (US/CM)	WATER (DEG C)	PER SECOND	ANCE (US/CM)	WATER (DEG C)		
APR 16...	1205	96	246	4.0	JUL 12...	1005	11	220	15.0
MAY 13...	1116	520	131	8.5					

## GREEN RIVER BASIN

**09246200 ELKHEAD CREEK ABOVE LONG GULCH, NEAR HAYDEN, CO**

LOCATION.--Lat 40°35'30", long 107°19'13", in NW<sup>1/4</sup>SE<sup>1/4</sup> sec.1, T.7 N., R.89 W., Routt County, Hydrologic Unit 14050001, on left bank 0.3 mi upstream from Long Gulch, and 9.0 mi northwest of Hayden.

DRAINAGE AREA.--171 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--August 1995 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage 6,405 ft above sea level, from topographic map.

REMARKS.--Record good except for periods of beaver dam effect and estimated daily discharges, Oct. 1 to Apr. 22, which are poor. Natural flow affected by diversions for irrigation of several hundred acres upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.9	17	16	e9.4	e7.6	e9.4	e276	379	315	27	6.0	.67
2	7.0	16	15	e9.4	e7.0	e9.6	385	427	280	22	4.6	.36
3	5.6	13	15	e8.6	e6.4	e10	286	565	260	21	4.5	.18
4	6.1	13	13	e9.0	e6.5	e12	209	702	240	18	6.7	.10
5	6.5	13	13	e8.8	e6.7	e12	192	879	231	17	8.2	.32
6	6.1	15	15	e8.4	e6.9	e11	245	1130	214	18	5.8	.45
7	7.6	14	13	e8.2	e7.2	e11	302	1150	189	18	4.1	.45
8	9.2	14	13	e8.3	e8.2	e11	440	1070	174	15	3.7	1.6
9	11	15	14	e8.6	e9.4	e11	614	1310	161	14	3.3	1.6
10	9.6	15	14	e9.0	e11	e12	656	1200	145	13	2.8	1.3
11	9.1	13	12	e9.4	e12	e13	693	1010	131	13	2.2	1.3
12	9.4	15	15	e8.8	e11	e15	389	1150	119	12	2.1	1.1
13	11	17	15	e9.0	e11	18	346	1130	104	11	1.8	.87
14	12	22	14	e9.4	e11	23	221	1120	92	9.9	1.6	1.2
15	11	18	12	e9.8	e11	23	187	1040	88	9.9	1.5	1.4
16	11	17	13	e10	e11	21	254	1000	84	9.7	1.4	1.5
17	10	16	13	e11	e11	27	337	1190	73	13	1.2	2.8
18	11	15	13	e9.4	e12	29	255	840	67	16	.75	2.6
19	11	15	12	e7.8	e12	24	229	697	57	13	.39	2.6
20	11	15	12	e8.0	e14	20	184	566	51	12	.62	2.9
21	11	14	13	e8.3	e15	17	177	471	67	9.5	.51	2.9
22	13	14	12	e8.7	e15	20	161	421	98	7.9	.29	2.9
23	15	15	e11	e8.2	e12	44	203	403	62	6.9	.67	2.9
24	14	14	e10	e7.8	e11	69	464	419	50	6.5	.48	2.9
25	12	14	e9.8	e8.2	e11	45	752	498	42	5.0	.33	3.2
26	13	14	e9.6	e7.8	e12	e46	606	620	38	3.8	.17	4.6
27	16	14	e9.4	e6.7	e11	e48	582	477	38	3.4	.41	5.2
28	15	13	e9.3	e6.8	e10	e62	479	431	40	3.4	.33	4.7
29	15	14	e9.2	e7.1	e9.2	e80	347	442	36	10	.65	4.2
30	15	15	e9.1	e7.5	---	e150	352	382	32	8.7	1.0	4.1
31	16	---	e9.2	e8.0	---	e200	---	344	---	9.1	.98	---
TOTAL	339.1	449	383.6	265.4	299.1	1103.0	10823	23463	3578	376.7	69.08	62.90
MEAN	10.9	15.0	12.4	8.56	10.3	35.6	361	757	119	12.2	2.23	2.10
MAX	16	22	16	11	15	200	752	1310	315	27	8.2	5.2
MIN	5.6	13	9.1	6.7	6.4	9.4	161	344	32	3.4	.17	.10
AC-FT	673	891	761	526	593	2190	21470	46540	7100	747	137	125

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1996, BY WATER YEAR (WY)

MEAN	10.9	15.0	12.4	8.56	10.3	35.6	361	757	119	12.2	2.23	4.22
(WY)	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996	1995
MIN	10.9	15.0	12.4	8.56	10.3	35.6	361	757	119	12.2	2.23	2.10
(WY)	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996

SUMMARY STATISTICS							FOR 1996 WATER YEAR				WATER YEARS 1995 - 1996		
ANNUAL TOTAL							41211.88						
ANNUAL MEAN							113						
HIGHEST ANNUAL MEAN												113	1996
LOWEST ANNUAL MEAN												113	1996
HIGHEST DAILY MEAN							1310	May 9				1310	May 9 1996
LOWEST DAILY MEAN							.10	Sep 4				.10	Sep 4 1996
ANNUAL SEVEN-DAY MINIMUM							.36	Sep 1				.36	Sep 1 1996
INSTANTANEOUS PEAK FLOW							1940	May 9				1940	May 9 1996
INSTANTANEOUS PEAK STAGE							6.96	May 9				6.96	May 9 1996
ANNUAL RUNOFF (AC-FT)							81740						
10 PERCENT EXCEEDS							408						
50 PERCENT EXCEEDS							13						
90 PERCENT EXCEEDS							2.2						

e-Estimated.

**09246200 ELKHEAD CREEK ABOVE LONG GULCH, NEAR HAYDEN, CO--Continued****WATER-QUALITY RECORDS**

PERIOD OF RECORD.--July 1995 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: August 1995 to current year.

WATER TEMPERATURE: September 1995 to current year.

INSTRUMENTATION.--Water-quality monitor with satellite telemetry.

REMARKS.--Previous to July 1995, no water-quality at this site. Interruptions in daily record are the result of severe probe fouling or instrument malfunctions. Daily maximum and minimum specific conductance and water temperature are available for the period August 1995 to September 1995 in the district office. Specific conductance record is fair. Water temperature record is good.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 631 microsiemens, Sept. 9, 1996; minimum, 101 microsiemens, May 11, 1996.

WATER TEMPERATURE: Maximum, 27.3°C, July 4, 1996; minimum, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 631 microsiemens, Sept. 9; minimum, 101 microsiemens, May 11.

WATER TEMPERATURE: Maximum, 27.3°C, July 4; minimum, 0.0°C on many days during winter months.

**WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996**

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
OCT 17...	1330	10	340	7.9	10.5	4.3	9.0	140	36	12	15
NOV 20...	1100	16	421	8.1	2.5	4.2	10.9	170	41	16	21
JAN 18...	1530	8.9	424	7.9	0.0	2.0	10.8	180	45	17	23
FEB 22...	0930	16	483	7.6	0.5	25	10.9	200	46	20	29
MAR 27...	1200	48	584	8.1	0.5	20	11.8	210	48	22	40
APR 22...	1145	124	390	8.0	3.5	55	11.3	140	34	14	23
MAY 07...	1500	862	240	8.0	6.5	110	12.5	87	22	7.8	10
JUN 26...	1130	39	307	8.2	19.0	3.0	8.7	120	31	11	14
JUL 23...	1345	8.2	353	8.8	24.0	16	8.1	140	33	13	19
AUG 13...	1130	1.8	404	8.0	20.5	20	8.5	160	39	15	23
SEP 03...	1530	0.20	565	8.7	24.5	4.3	7.6	200	40	23	48
DATE	RATIO	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
OCT 17...	0.6	1.9	130	45	2.2	<0.1	11	190	202	0.26	5.13
NOV 20...	0.7	1.7	115	95	2.5	0.2	11	252	257	0.34	11.1
JAN 18...	0.7	1.6	137	88	2.3	0.2	15	--	275	0.37	6.59
FEB 22...	0.9	1.8	133	110	3.3	0.1	13	--	304	0.41	13.1
MAR 27...	1	2.7	124	170	3.6	0.1	10	--	372	0.51	48.1
APR 22...	0.8	2.0	99	93	2.5	0.1	9.9	--	239	0.32	79.9
MAY 07...	0.5	1.2	68	37	1.1	0.1	8.9	--	130	0.18	302
JUN 26...	0.6	1.4	114	42	1.5	0.1	12	--	181	0.25	19.1
JUL 23...	0.7	1.4	144	38	3.1	0.2	2.2	38	196	0.05	0.84
AUG 13...	0.8	3.0	166	43	4.0	0.2	4.1	--	231	0.31	1.13
SEP 03...	1	3.7	205	82	10	0.2	2.2	--	333	0.45	0.18

## GREEN RIVER BASIN

## 09246200 ELKHEAD CREEK ABOVE LONG GULCH, NEAR HAYDEN, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO-GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO-GEN, NO <sub>2</sub> +NO <sub>3</sub> DIS- SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO-GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS DIS. (MG/L AS P)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
OCT 17...	<0.01	0.07	0.18	0.3	0.5	<0.01	<0.01	<0.01	<0.01	4.6	4.1
NOV 20...	<0.01	<0.05	<0.02	<0.2	<0.2	<0.01	0.02	<0.01	--	--	--
JAN 18...	<0.01	0.13	<0.02	<0.2	<0.2	<0.01	<0.01	<0.01	--	--	--
FEB 22...	<0.01	0.24	0.03	0.2	<0.2	0.04	<0.01	0.01	--	--	--
MAR 27...	0.02	0.21	0.02	0.5	0.4	0.05	0.04	0.02	--	--	--
APR 22...	0.01	0.14	<0.02	0.4	0.3	0.05	0.01	0.01	--	--	--
MAR 07...	<0.01	0.15	0.02	0.5	0.3	0.08	0.01	0.02	11	5.7	
JUN 26...	<0.01	<0.05	0.02	<0.2	<0.2	<0.01	<0.01	<0.01	--	--	--
JUL 23...	<0.01	<0.05	<0.02	0.3	0.2	<0.01	<0.01	0.01	7.8	6.1	
AUG 13...	0.01	<0.05	0.03	0.4	0.3	0.01	0.02	<0.01	--	--	--
SEP 03...	<0.01	0.06	<0.02	0.5	0.4	0.02	<0.01	<0.01	9.3	6.8	
DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ARSENIC TOTAL DIS- SOLVED (UG/L AS AS)	BARIUM, ARSENIC TOTAL DIS- SOLVED (UG/L AS AS)	BARIUM, RECov- ERABLE (UG/L AS BA)	BARIUM, RECov- ERABLE (UG/L AS BA)	BERYL- LIUM, RECov- ERABLE (UG/L AS BE)	BORON, RECov- ERABLE (UG/L AS B)	CADMIUM TOTAL DIS- SOLVED (UG/L AS CD)	CADMIUM TOTAL DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, TOTAL DIS- SOLVED (UG/L AS CR)
OCT 17...	--	--	--	--	--	--	--	--	--	--	--
NOV 20...	--	--	--	--	--	--	--	--	--	--	--
FEB 22...	--	--	--	--	--	--	--	<1	--	--	--
MAR 27...	590	--	<1	<100	61	<10	40	<1	<1	2	<1
MAY 07...	3400	1	<1	<100	31	<10	20	<1	<1	5	6
SEP 03...	420	<1	<1	<100	86	<10	60	<1	<1	<1	<1
DATE	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, RECov- ERABLE (UG/L AS FE)	IRON, RECov- ERABLE (UG/L AS FE)	LEAD, RECov- ERABLE (UG/L AS PB)	LEAD, RECov- ERABLE (UG/L AS PB)	LITHIUM TOTAL RECov- ERABLE (UG/L AS LI)	MANGA- NESE, TOTAL RECov- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)
OCT 17...	--	--	--	--	48	--	--	--	--	14	--
NOV 20...	--	--	--	--	20	--	--	--	--	13	--
FEB 22...	--	--	1	1200	--	--	<1	--	50	40	--
MAR 27...	<1	3	1	890	17	<1	<1	20	50	28	--
MAY 07...	3	6	2	4500	32	8	<1	<10	110	10	<0.1
SEP 03...	<1	3	2	570	<3	<1	<1	10	80	9	<0.1

**09246200 ELKHEAD CREEK ABOVE LONG GULCH, NEAR HAYDEN, CO--Continued**

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, TOTAL ERABLE (UG/L AS MO)	NICKEL, TOTAL ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 17...	--	--	--	--	--	--	--	--	--	--
NOV 20...	--	--	--	--	--	--	--	--	--	--
FEB 22...	<0.1	--	--	--	--	<1	--	<1	--	<10
MAR 27...	<0.1	2	3	2	--	<1	<1	<1	450	<10
MAY 07...	<0.1	<1	9	2	<1	<1	<1	--	190	20
SEP 03...	<0.1	4	3	2	<1	<1	<1	<1	580	<10
										<3

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SEDI- MENT, DIS- CHARGE, SUS- PENDED PER SECOND	SED. SIEVE DIAM. % FINER	SED. SUSP. DIAM. THAN .062 MM
OCT 17...	1330	10	905	24	--
NOV 20...	1100	16	15	0.65	--
JAN 18...	1530	8.9	10	0.23	--
FEB 22...	0930	16	46	2.0	--
MAR 27...	1200	48	62	8.0	--
APR 22...	1145	124	190	64	76
MAY 07...	1500	862	859	2000	--
JUN 26...	1130	39	3	0.36	--
JUL 23...	1345	8.2	6	0.13	--
AUG 13...	1130	1.8	42	0.20	--
SEP 03...	1530	0.20	26	0.01	--

## GREEN RIVER BASIN

**09246200 ELKHEAD CREEK ABOVE LONG GULCH, NEAR HAYDEN, CO--Continued**

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C.), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## GREEN RIVER BASIN

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**09246200 ELKHEAD CREEK ABOVE LONG GULCH, NEAR HAYDEN, CO--Continued**

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	172	165	167	320	314	316	385	365	376	604	585	594
2	172	167	169	329	320	325	365	361	363	588	553	577
3	172	166	169	337	322	330	371	358	364	---	---	---
4	171	160	163	334	324	329	372	366	369	570	551	562
5	166	159	162	343	332	338	370	364	367	567	549	557
6	169	160	164	341	319	331	366	353	359	553	539	548
7	173	165	169	324	311	320	364	358	360	561	536	550
8	181	170	177	323	315	317	371	364	367	628	561	583
9	183	178	180	335	323	330	381	371	375	631	571	604
10	191	183	187	350	332	342	390	381	387	572	546	559
11	204	191	198	348	334	342	---	---	---	552	539	544
12	213	202	207	348	335	342	---	---	---	540	531	536
13	218	213	215	342	337	340	---	---	---	537	522	531
14	221	213	216	344	331	338	425	406	412	535	526	531
15	220	213	216	353	335	344	438	423	428	565	534	546
16	229	219	223	354	334	346	447	429	437	566	557	563
17	240	226	230	362	337	350	451	437	445	561	522	544
18	241	236	238	353	334	344	459	451	455	522	489	507
19	244	237	240	344	332	338	463	448	458	489	473	478
20	244	234	239	332	321	326	475	457	465	483	476	478
21	263	242	250	341	332	337	487	470	478	489	479	485
22	271	256	260	357	341	351	504	474	489	480	457	472
23	283	271	279	366	349	360	537	504	516	457	427	440
24	288	280	283	371	364	367	545	527	536	433	422	429
25	292	256	275	375	365	371	554	529	545	429	412	424
26	308	272	294	377	370	373	---	---	---	432	412	423
27	317	304	310	384	374	378	569	547	560	421	390	411
28	308	303	305	388	378	383	565	533	552	422	382	408
29	320	306	315	388	332	374	566	548	560	420	395	409
30	315	310	313	372	320	339	586	563	569	416	387	401
31	---	---	---	386	372	382	603	586	597	---	---	---
MONTH	320	159	227	388	311	345	---	---	---	---	---	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	13.8	8.3	10.7	8.1	6.0	7.2	1.5	.3	.7	.0	.0	.0
2	13.9	9.2	11.6	6.0	2.1	3.7	1.6	.4	.8	.0	.0	.0
3	14.2	9.7	12.1	3.2	.4	1.9	1.5	.4	.7	.0	.0	.0
4	13.1	7.6	9.9	3.1	.6	1.8	1.6	.1	.9	.0	.0	.0
5	7.6	6.1	7.0	2.1	.2	1.2	1.6	.4	1.1	.0	.0	.0
6	9.9	4.1	6.9	2.9	1.2	1.9	1.7	.9	1.3	.0	.0	.0
7	10.6	5.3	8.1	2.5	1.5	2.1	1.4	.4	.9	.0	.0	.0
8	11.9	7.0	9.4	4.3	1.0	2.6	1.2	.3	.6	.0	.0	.0
9	11.2	6.5	9.0	3.8	2.1	2.8	1.0	.3	.6	.0	.0	.0
10	12.3	7.1	9.8	2.1	.7	1.4	1.8	.3	.9	.1	.0	.0
11	12.6	7.6	10.3	1.2	.3	.6	1.9	.0	1.0	.1	.0	.0
12	11.7	9.1	10.1	.9	.4	.6	1.2	.7	1.0	.0	.0	.0
13	10.2	5.9	8.2	2.0	.6	1.2	2.3	1.1	1.6	.0	.0	.0
14	9.8	4.9	7.5	4.2	1.8	2.8	1.7	.4	1.0	.0	.0	.0
15	10.9	5.6	8.3	4.6	1.8	3.2	1.0	.3	.5	.0	.0	.0
16	11.1	6.6	9.1	4.3	1.7	3.1	.9	.3	.5	.0	.0	.0
17	11.0	6.7	9.1	4.5	1.8	3.2	.9	.3	.5	.1	.0	.1
18	9.9	6.5	8.2	4.1	1.4	2.8	.8	.3	.4	.1	.0	.0
19	9.2	5.9	7.8	4.2	1.2	2.7	.5	.3	.4	.0	.0	.0
20	7.7	3.2	5.9	4.4	2.1	3.3	.4	.3	.3	.0	.0	.0
21	7.1	3.5	5.8	3.7	1.4	2.7	.3	.3	.3	---	---	---
22	7.0	4.0	5.2	4.1	2.7	3.3	.3	.3	.3	---	---	---
23	5.5	1.9	3.4	4.5	2.7	3.5	.3	.0	.2	---	---	---
24	4.7	1.1	3.0	3.7	1.6	2.7	.0	.0	.0	---	---	---
25	5.2	1.6	3.5	3.7	1.4	2.6	.0	.0	.0	---	---	---
26	4.8	3.2	3.9	3.0	1.0	1.8	.0	.0	.0	---	---	---
27	6.1	2.4	4.2	1.3	.4	.8	.0	.0	.0	---	---	---
28	5.6	2.4	4.2	.4	.4	.4	.0	.0	.0	---	---	---
29	5.7	3.3	4.6	1.0	.4	.6	.0	.0	.0	---	---	---
30	8.8	5.5	7.0	1.2	.3	.6	.0	.0	.0	---	---	---
31	8.8	7.4	8.2	---	---	---	.0	.0	.0	---	---	---
MONTH	14.2	1.1	7.5	8.1	.2	2.3	2.3	.0	.5	---	---	---

## GREEN RIVER BASIN

**09246200 ELKHEAD CREEK ABOVE LONG GULCH, NEAR HAYDEN, CO--Continued**

## TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	6.1	4.7	5.3
2	---	---	---	---	---	---	2.3	.3	1.0	7.4	4.7	5.7
3	---	---	---	---	---	---	4.3	.4	2.1	7.6	4.3	6.1
4	---	---	---	---	---	---	4.4	.5	2.3	8.2	3.9	6.1
5	---	---	---	---	---	---	6.6	.5	3.3	9.5	3.5	6.2
6	---	---	---	---	---	---	7.0	.6	3.7	9.2	3.9	6.5
7	---	---	---	---	---	---	7.1	1.3	4.1	8.9	4.6	6.2
8	---	---	---	---	---	---	7.9	1.8	4.7	9.9	4.3	6.6
9	---	---	---	---	---	---	8.7	1.5	4.4	9.6	4.3	6.7
10	---	---	---	---	---	---	7.9	2.0	4.0	8.9	3.7	6.5
11	---	---	---	---	---	---	5.4	2.1	3.2	11.0	3.5	7.0
12	---	---	---	---	---	---	5.3	2.0	3.4	11.0	4.9	8.1
13	---	---	---	---	---	---	5.3	1.7	3.3	12.0	4.9	8.4
14	---	---	---	---	---	---	5.4	1.9	3.5	11.8	5.8	9.1
15	---	---	---	---	---	---	7.8	2.8	5.0	12.0	6.1	9.1
16	---	---	---	---	---	---	8.6	4.4	6.5	12.5	6.9	9.9
17	---	---	---	---	---	---	8.6	4.4	5.7	12.2	7.5	9.7
18	---	---	---	---	---	---	4.9	2.2	3.5	10.7	6.9	8.9
19	---	---	---	---	---	---	3.9	1.3	2.5	10.4	6.5	8.5
20	---	---	---	---	---	---	3.2	1.2	2.4	10.8	7.0	8.9
21	---	---	---	---	---	---	5.9	.9	3.2	11.2	7.3	9.4
22	---	---	---	---	---	---	6.9	2.9	5.3	11.0	9.6	10.2
23	---	---	---	---	---	---	10.6	5.1	7.5	10.0	8.2	9.2
24	---	---	---	---	---	---	10.5	6.1	8.2	9.7	7.8	8.7
25	---	---	---	---	---	---	8.4	3.3	5.5	9.3	7.5	8.3
26	---	---	---	---	---	---	7.3	3.0	4.6	9.0	5.6	7.4
27	---	---	---	---	---	---	6.4	3.5	5.1	9.5	7.1	8.1
28	---	---	---	---	---	---	6.3	2.8	4.1	9.4	7.3	8.5
29	---	---	---	---	---	---	6.5	2.1	4.2	13.3	6.9	9.8
30	---	---	---	---	---	---	6.5	5.0	5.7	13.2	11.0	12.1
31	---	---	---	---	---	---	---	---	---	13.2	8.2	10.8
MONTH	---	---	---	---	---	---	---	---	---	13.3	3.5	8.1
	JUNE			JULY			AUGUST			SEPTEMBER		
1	14.0	9.4	11.7	25.6	17.2	21.4	26.2	17.7	21.7	22.7	13.0	17.7
2	15.1	8.7	11.9	25.7	17.8	21.9	25.1	18.4	21.6	---	---	---
3	16.9	10.1	13.5	25.5	18.2	22.3	23.1	17.2	20.1	---	---	---
4	16.9	11.3	14.4	27.3	18.2	22.6	23.4	17.3	20.1	22.4	12.2	17.2
5	16.9	11.6	14.6	27.2	20.3	23.2	23.1	14.8	18.9	18.0	13.5	15.3
6	17.8	11.7	14.9	26.1	19.1	22.7	22.1	15.0	18.4	20.3	13.5	15.8
7	18.7	11.2	15.0	27.0	18.3	22.7	23.5	14.3	18.7	22.6	10.9	16.1
8	18.1	12.6	15.7	26.4	18.7	22.6	24.8	15.2	20.0	19.9	12.2	16.0
9	19.7	13.1	16.4	23.0	18.8	20.8	24.0	17.0	20.6	20.9	12.8	16.6
10	19.4	14.4	17.2	25.1	17.3	21.2	23.5	16.2	20.0	22.5	12.6	17.2
11	19.0	13.8	16.5	25.5	17.5	21.5	24.4	16.0	20.3	18.1	15.2	16.6
12	19.8	13.3	16.7	25.8	16.6	21.1	24.2	16.3	20.4	19.9	14.6	16.7
13	21.3	15.1	18.2	26.3	18.2	22.0	24.2	16.6	20.4	19.4	14.0	16.1
14	20.2	15.7	18.2	26.8	17.6	22.1	24.6	16.7	20.2	18.5	12.9	15.2
15	18.0	14.9	16.0	23.5	17.6	20.7	23.2	16.6	19.8	19.5	12.5	15.7
16	20.5	12.7	16.5	25.7	18.2	21.5	25.8	16.4	20.7	17.0	12.6	14.5
17	20.4	14.7	17.7	24.9	18.4	21.5	26.2	16.6	21.1	13.3	11.2	12.1
18	21.8	13.7	17.7	24.7	18.6	21.3	24.4	17.8	20.1	12.6	10.2	11.2
19	23.0	14.4	18.6	26.9	18.7	22.5	24.7	15.8	18.9	11.0	8.9	9.8
20	21.0	15.3	18.2	27.2	19.2	22.9	24.0	15.4	19.3	11.9	8.5	9.7
21	18.0	15.4	16.4	26.5	17.5	22.1	24.5	16.1	19.7	13.4	9.2	10.9
22	20.6	13.6	16.7	26.2	17.4	21.9	25.7	13.6	18.8	14.4	10.7	12.3
23	22.4	14.3	18.3	25.8	17.5	21.7	25.4	14.8	19.7	15.6	11.2	13.5
24	23.3	15.1	19.3	26.4	17.5	21.8	26.9	15.3	20.5	15.7	11.5	13.6
25	22.1	14.9	18.6	23.5	19.0	21.2	26.3	13.8	19.7	14.3	10.8	12.6
26	23.4	16.7	20.0	25.0	16.2	20.6	25.2	15.4	18.6	10.8	8.1	9.2
27	20.8	17.5	19.2	26.1	17.3	21.7	26.3	15.8	19.8	10.4	5.2	7.8
28	19.7	15.7	17.7	23.1	18.6	20.9	26.2	15.6	20.2	13.1	7.3	10.2
29	23.3	13.5	18.1	23.7	18.3	20.5	24.6	14.8	19.0	14.2	8.4	11.6
30	24.6	15.6	20.2	23.2	14.5	18.7	23.0	13.9	18.3	14.4	9.1	12.1
31	---	---	---	25.4	17.3	21.3	23.1	14.1	18.5	---	---	---
MONTH	24.6	8.7	16.8	27.3	14.5	21.6	26.9	13.6	19.8	---	---	---

## GREEN RIVER BASIN

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**ELKHEAD RESERVOIR NEAR CRAIG, CO**  
**WATER-QUALITY RECORDS**

REMARKS.--Samples and field measurements were collected at a number of sites within the reservoir.

**403507107214900 ELKHEAD RESERVOIR SITE 1A**

LOCATION.--Lat 40°35'07", long 107°21'49", in NE<sup>1/4</sup>NW<sup>1/4</sup>, sec.10, T.7 N., R.89 W., Routt County, Hydrologic Unit 14050001, approximately 80 ft from northwest shore in transect approximately 3.2 mi upstream from Elkhead Dam.

PERIOD OF RECORD.--July 1995 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM-	CIFIC	PH	TEMPER-	TRANS-	PAR-	OXYGEN,
		PLING	CON-					
		DEPTH	DUCT-	(STAND-	ATURE	(SECCHI	DISK)	SOLVED
		(FEET)	(US/CM)	ARD	WATER	(IN)	(MG/L)	
<b>OCT</b>								
18...	0950	--	--	--	--	42.0	--	--
18...	0951	0.0	226	7.6	10.0	--	--	7.8
18...	0952	3.0	232	7.5	9.5	--	--	7.9
18...	0953	3.5	228	7.6	9.5	--	--	8.2
<b>MAY</b>								
08...	1029	--	--	--	--	6.00	--	--
08...	1030	0.0	141	7.4	6.5	--	--	9.2
08...	1031	3.0	141	7.5	6.0	--	--	9.3
08...	1032	5.0	141	7.5	6.0	--	--	9.1
<b>JUL</b>								
24...	0829	--	--	--	--	66.0	--	--
24...	0830	0.0	265	8.1	20.5	--	--	7.9
24...	0831	1.5	266	8.1	20.5	--	--	6.6
24...	0832	3.0	266	8.1	20.5	--	--	6.4
24...	0833	4.5	268	8.1	20.0	--	--	6.7
24...	0834	6.0	268	8.2	20.0	--	--	6.9
<b>SEP</b>								
04...	1258	--	--	--	--	48.0	--	--
04...	1259	0.0	244	8.3	20.5	--	--	7.1
04...	1300	1.0	241	8.3	20.5	--	--	7.2
04...	1301	2.0	241	8.3	20.5	--	--	7.1
04...	1302	3.0	242	8.3	20.5	--	--	7.0

**403506107214500 ELKHEAD RESERVOIR SITE 1B**

LOCATION.--Lat 40°35'06", long 107°21'45", in NE<sup>1/4</sup>NW<sup>1/4</sup>, sec.10, T.7 N., R.89 W., Routt County, Hydrologic Unit 14050001, approximately 200 ft from southeast shore in transect approximately 3.2 mi upstream from Elkhead Dam.

PERIOD OF RECORD.--July 1995 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM-	CIFIC	PH	TEMPER-	TRANS-	PAR-	OXYGEN,
		PLING	CON-					
		DEPTH	DUCT-	(STAND-	ATURE	(SECCHI	DISK)	SOLVED
		(FEET)	(US/CM)	ARD	WATER	(IN)	(MG/L)	
<b>OCT</b>								
18...	0958	--	--	--	--	42.0	--	--
18...	0959	0.0	232	7.7	9.5	--	--	7.8
18...	1000	3.0	234	7.7	9.5	--	--	7.8
18...	1001	6.0	242	7.8	9.5	--	--	7.8
18...	1002	9.0	278	7.8	9.0	--	--	8.0
18...	1003	11.0	280	7.8	9.0	--	--	8.0
<b>MAY</b>								
08...	1101	--	--	--	--	6.00	--	--
08...	1102	0.0	145	7.5	8.5	--	--	9.0
08...	1103	3.0	143	7.5	6.5	--	--	9.2
08...	1104	6.0	141	7.5	5.5	--	--	9.5
08...	1105	9.0	141	7.5	5.5	--	--	9.6
<b>JUL</b>								
24...	0849	--	--	--	--	66.0	--	--
24...	0850	0.0	267	8.1	20.5	--	--	6.2
24...	0851	3.0	265	8.1	20.5	--	--	6.2
24...	0852	4.5	267	8.1	20.5	--	--	6.6
24...	0853	6.0	269	8.1	20.5	--	--	6.6
24...	0854	7.5	271	8.1	20.0	--	--	6.6
24...	0855	9.0	293	8.1	20.0	--	--	6.5
24...	0856	12.0	286	8.1	19.5	--	--	6.4
24...	0857	14.5	295	8.1	19.5	--	--	6.7

## GREEN RIVER BASIN

## ELKHEAD RESERVOIR NEAR CRAIG, CO--Continued

## WATER-QUALITY RECORDS

## 403506107214500 ELKHEAD RESERVOIR SITE 1B--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM-PLING (FEET)	CON-CIFIC (US/CM)	pH UNITS	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	TRANS-PAR-ENCY (SECCHI DISK)	OXYGEN, DIS-SOLVED (MG/L)
<b>SEP</b>								
04...	1314	--	--	--	--	48.0	--	
04...	1315	0.0	243	8.3	20.5	--	7.2	
04...	1316	1.0	242	8.3	20.0	--	7.2	
04...	1317	2.0	242	8.3	20.5	--	7.2	
04...	1318	3.0	242	8.3	20.0	--	7.1	
04...	1319	4.0	243	8.3	20.0	--	7.1	
04...	1320	5.0	243	8.3	19.5	--	7.1	
04...	1321	6.0	242	8.3	19.0	--	7.1	
04...	1322	7.0	243	8.3	19.0	--	7.2	
04...	1323	8.0	243	8.3	19.0	--	7.2	
<b>MAY</b>								
08...	1110	2.0	234	7.7	9.5	7.8	0.002	0.006
08...	1145	7.0	278	7.8	9.0	8.0	0.003	<0.005
<b>JUL</b>								
24...	0915	2.0	265	8.1	20.5	6.2	0.002	<0.005
24...	0925	6.0	293	8.1	20.0	6.5	0.002	<0.005
<b>SEP</b>								
04...	1325	2.0	242	8.3	20.5	7.2	<0.001	<0.005
04...	1335	6.0	242	8.3	20.5	7.1	<0.001	<0.005
<b>OCT</b>								
18...	1005	2.0	234	7.7	9.5	7.8	0.002	0.210
18...	1040	9.0	278	7.8	9.0	8.0	0.002	0.200
<b>MAY</b>								
08...	1110	2.0	144	7.5	7.0	9.1	0.004	0.006
08...	1145	7.0	141	7.5	5.5	9.5	0.002	0.005
<b>JUL</b>								
24...	0915	2.0	265	8.1	20.5	6.2	0.002	<0.005
24...	0925	6.0	293	8.1	20.0	6.5	0.002	<0.005
<b>SEP</b>								
04...	1325	2.0	242	8.3	20.5	7.2	<0.001	<0.005
04...	1335	6.0	242	8.3	20.5	7.1	<0.001	<0.005
<b>OCT</b>								
18...	0.006	0.30	0.20	--	0.051	0.042	1.0	0.1
18...	<0.002	0.30	0.20	0.018	0.021	0.009	0.7	<0.1
<b>MAY</b>								
08...	0.003	0.80	0.30	0.018	0.018	0.011	<0.1	<0.1
08...	0.007	0.50	0.30	0.016	0.016	0.008	<0.1	<0.1
<b>JUL</b>								
24...	0.009	0.30	0.30	0.016	0.004	--	--	--
24...	<0.002	0.40	0.30	0.024	0.003	<0.001	--	--
<b>SEP</b>								
04...	<0.002	0.30	0.30	0.017	0.005	<0.001	0.6	<0.1
04...	<0.002	0.30	0.30	0.020	0.007	<0.001	0.7	0.1

## ELKHEAD RESERVOIR NEAR CRAIG, CO--Continued

## WATER-QUALITY RECORDS

## 403439107223800 ELKHEAD RESERVOIR SITE 2A

LOCATION.--Lat 40°34'39", long 107°22'38", in NE<sup>1/4</sup>SE<sup>1/4</sup>, sec.9, T.7 N., R.89 W., Moffat County, Hydrologic Unit 14050001, approximately 60 ft from northwest shore in transect approximately 1.5 mi upstream from Elkhead Dam.

PERIOD OF RECORD.--July 1995 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SPE-	CIFIC	PH (STAND- ARD)	TEMPER- ATURE (DEG C)	TRANS-	PAR- ENCY (SECCHI DIS- K)	OXYGEN, DIS- OLVED (MG/L)
		SAM- PLING	CON- DUC- TANCE			(IN)		
DATE								
		DEPTH (FEET)	(US/CM)	DEPTH (FEET)	TEMPER- ATURE (DEG C)	TRANS-		
OCT								
18...	1120	--	--	--	--	42.0	--	
18...	1121	0.0	199	7.6	10.0	--	7.6	
18...	1122	3.0	199	7.6	10.0	--	7.6	
18...	1123	6.0	199	7.6	10.0	--	7.5	
18...	1124	9.0	199	7.6	10.0	--	8.0	
18...	1125	12.0	199	7.6	10.0	--	8.1	
18...	1126	15.0	199	7.6	10.0	--	8.2	
18...	1127	18.0	200	7.6	10.0	--	8.2	
18...	1128	21.0	199	7.6	10.0	--	8.3	
18...	1129	23.0	200	7.6	10.0	--	8.4	
MAY								
08...	1226	--	--	--	--	6.00	--	
08...	1227	0.0	202	7.4	9.0	--	9.0	
08...	1228	3.0	202	7.4	8.0	--	9.0	
08...	1229	6.0	196	7.4	7.5	--	9.0	
08...	1230	9.0	187	7.4	7.5	--	9.0	
08...	1231	12.0	173	7.4	7.0	--	8.9	
08...	1232	15.0	164	7.4	7.0	--	9.0	
08...	1233	18.0	163	7.4	7.0	--	9.0	
08...	1234	21.0	163	7.4	7.0	--	8.9	
08...	1235	24.0	160	7.4	7.0	--	8.9	
JUL								
24...	1029	--	--	--	--	84.0	--	
24...	1030	0.0	241	8.1	21.0	--	6.6	
24...	1031	3.0	240	8.1	21.0	--	7.1	
24...	1032	4.5	240	8.1	21.0	--	6.9	
24...	1033	6.0	239	8.1	21.0	--	7.0	
24...	1034	9.0	239	8.1	20.0	--	7.0	
24...	1035	12.0	234	8.0	20.5	--	6.9	
24...	1036	15.0	227	7.7	19.5	--	5.8	
24...	1037	18.0	229	7.5	18.5	--	4.5	
24...	1038	20.0	211	7.1	14.5	--	2.5	
SEP								
04...	1047	--	--	--	--	72.0	--	
04...	1048	0.0	237	8.2	18.5	--	7.2	
04...	1049	2.0	236	8.2	18.5	--	7.0	
04...	1050	4.0	237	8.2	18.5	--	7.0	
04...	1051	6.0	236	8.2	18.5	--	6.9	
04...	1052	8.0	237	8.2	18.5	--	6.9	
04...	1053	10.0	237	8.2	18.0	--	6.9	
04...	1054	12.0	237	8.2	18.0	--	6.9	
04...	1055	14.0	237	8.2	18.0	--	6.9	
04...	1056	16.0	236	8.2	18.0	--	6.8	
04...	1057	18.0	236	8.2	18.0	--	6.8	
04...	1058	20.0	233	7.7	17.5	--	4.2	

## GREEN RIVER BASIN

## ELKHEAD RESERVOIR NEAR CRAIG, CO--Continued

## WATER-QUALITY RECORDS

403437107223300 ELKHEAD RESERVOIR SITE 2B

LOCATION.--Lat 40°34'37", long 107°22'33", in NE<sup>1/4</sup>SE<sup>1/4</sup>, sec.9, T.7 N., R.89 W., Moffat County, Hydrologic Unit 14050001, at approximate center of transect approximately 1.5 mi upstream from Elkhead Dam.

PERIOD OF RECORD.--July 1995 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM- PLING (FEET)	CIFIC CON- DUCt- (STAND- ARD UNITS)	pH (US/CM)	TEMPER- ATURE WATER (DEG C)	TRANS- PAR- (SECCHI DISK) (IN)	OXYGEN, DIS- SOLVED (MG/L)
<b>OCT</b>							
18...	1135	--	--	--	--	42.0	--
18...	1136	0.0	199	7.6	10.0	--	7.1
18...	1137	3.0	199	7.6	10.0	--	7.1
18...	1138	6.0	200	7.6	10.0	--	7.1
18...	1139	9.0	200	7.6	10.0	--	7.1
18...	1140	12.0	200	7.6	10.0	--	7.1
18...	1141	15.0	200	7.6	10.0	--	7.2
18...	1142	18.0	200	7.6	10.0	--	7.2
18...	1143	21.0	200	7.6	10.0	--	7.2
18...	1144	24.0	200	7.6	10.0	--	7.2
18...	1145	27.0	200	7.6	10.0	--	7.2
18...	1146	30.0	199	7.6	10.0	--	7.2
18...	1147	33.0	199	7.6	10.0	--	7.2
18...	1148	36.0	199	7.5	10.0	--	6.9
18...	1149	37.0	199	7.5	10.0	--	6.6
<b>MAY</b>							
08...	1254	--	--	--	--	6.00	--
08...	1255	0.0	210	7.5	9.0	--	9.0
08...	1256	3.0	211	7.5	8.5	--	9.0
08...	1257	6.0	211	7.5	8.0	--	8.9
08...	1258	9.0	212	7.5	7.5	--	9.0
08...	1259	12.0	207	7.5	7.0	--	8.9
08...	1300	15.0	191	7.5	7.5	--	8.9
08...	1301	18.0	178	7.5	7.5	--	8.9
08...	1302	21.0	174	7.5	7.5	--	8.9
08...	1303	24.0	169	7.5	7.0	--	8.9
08...	1304	27.0	164	7.5	7.0	--	8.9
08...	1306	30.0	153	7.5	7.0	--	8.9
08...	1307	33.0	143	7.5	6.0	--	9.1
08...	1308	36.0	143	7.5	6.0	--	9.1
08...	1309	39.0	143	7.5	6.0	--	9.1
08...	1310	42.0	144	7.5	6.0	--	8.9
<b>JUL</b>							
24...	1044	--	--	--	--	84.0	--
24...	1045	0.0	239	8.1	21.0	--	6.8
24...	1046	3.0	239	8.1	21.0	--	7.2
24...	1047	6.0	239	8.1	20.5	--	7.1
24...	1048	9.0	241	8.1	20.5	--	7.0
24...	1049	12.0	242	8.1	20.5	--	7.0
24...	1050	15.0	226	7.8	19.5	--	6.3
24...	1051	18.0	226	7.5	18.5	--	4.4
24...	1052	21.0	218	7.2	14.5	--	2.8
24...	1053	24.0	201	7.1	13.0	--	2.5
24...	1054	27.0	193	7.0	11.5	--	2.7
24...	1055	30.0	187	7.0	10.5	--	2.9
24...	1056	33.0	182	7.0	10.0	--	3.2
24...	1057	36.0	179	7.0	9.5	--	3.2
24...	1058	39.0	179	6.9	9.5	--	3.2
24...	1059	42.0	178	6.9	9.5	--	3.2
24...	1100	45.0	178	6.9	9.0	--	3.7
<b>SEP</b>							
04...	1129	--	--	--	--	72.0	--
04...	1130	0.0	236	8.2	19.0	--	7.0
04...	1131	3.0	238	8.2	18.5	--	7.0
04...	1132	6.0	237	8.2	18.5	--	7.0
04...	1133	9.0	237	8.2	18.5	--	7.0
04...	1134	12.0	238	8.2	18.5	--	6.9
04...	1135	15.0	238	8.2	18.0	--	6.8
04...	1136	18.0	235	8.0	18.0	--	6.1
04...	1137	21.0	223	7.5	16.5	--	2.4
04...	1138	24.0	212	7.2	14.5	--	0.1
04...	1139	27.0	196	7.1	12.0	--	0.0
04...	1140	30.0	189	7.1	11.5	--	0.0
04...	1141	33.0	183	7.1	10.5	--	0.0
04...	1142	36.0	183	7.1	10.0	--	0.0
04...	1143	39.0	181	7.1	9.5	--	0.0
04...	1144	42.0	181	7.1	9.5	--	0.0
04...	1145	45.0	182	7.0	9.0	--	0.0

## ELKHEAD RESERVOIR NEAR CRAIG, CO--Continued

## WATER-QUALITY RECORDS

403437107223300 ELKHEAD RESERVOIR SITE 2B--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM-	SPE-	PH	TEMPER-	OXYGEN,	NITRO-	NITRO-	
		PLING	CIFIC			DIS-	GEN,	GEN,	
		DEPTH	ANCE	(US/CM)	ARD	WATER	SOLVED	NO <sub>2</sub> +NO <sub>3</sub>	
<b>OCT</b>									
18...	1150	2.0	199		7.6	10.0	7.1	0.001	
18...	1205	35.0	200		7.5	10.0	7.0	<0.001	
<b>MAY</b>									
08...	1305	2.0	210		7.5	8.5	9.0	0.005	
08...	1320	39.0	143		7.5	6.0	9.1	0.005	
<b>JUL</b>									
24...	1115	6.0	239		8.1	20.5	7.1	0.002	
24...	1130	42.0	178		6.9	9.5	3.2	0.002	
<b>SEP</b>									
04...	1200	3.0	238		8.2	18.5	7.0	<0.001	
04...	1215	42.0	181		7.1	9.5	0	0.002	
								0.016	
DATE	TIME	NITRO- GEN, AMMONIA DIS- SOLVED	NITRO- GEN, AM- MONIA + ORGANIC	NITRO- GEN, AM- MONIA + ORGANIC	PHOS- PHORUS	PHOS- PHORUS	CHLOR-A PHYTO- PLANK-	CHLOR-B PHYTO- PLANK-	
		(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	TOTAL DIS. AS P)	TOTAL DIS. AS P)	SOLVED (MG/L AS P)	TON (UG/L)	
<b>OCT</b>									
18...	<0.002	0.20	<0.20	0.017	0.010	<0.001	1.4	<0.1	
18...	<0.002	0.20	0.20	0.023	0.007	<0.001	0.5	<0.1	
<b>MAY</b>									
08...	<0.002	0.50	0.30	0.015	0.015	0.007	<0.1	<0.1	
08...	0.013	0.60	0.40	0.017	0.017	0.010	<0.1	<0.1	
<b>JUL</b>									
24...	0.002	0.30	0.30	0.016	0.003	<0.001	--	--	
24...	<0.002	0.40	0.30	0.042	0.007	0.001	--	--	
<b>SEP</b>									
04...	<0.002	0.30	0.20	0.015	0.005	<0.001	0.6	<0.1	
04...	<0.002	0.30	0.30	0.026	0.005	<0.001	e0.5	<0.1	

e-Estimated.

403435107222900 ELKHEAD RESERVOIR SITE 2C

LOCATION.--Lat 40°34'35", long 107°22'29", in NE<sup>1/4</sup>SE<sup>1/4</sup>, sec.9, T.7 N., R.89 W., Moffat County, Hydrologic Unit 14050001, approximately 30 ft from southeast shore in transect approximately 1.5 mi upstream from Elkhead Dam.

PERIOD OF RECORD.--July 1995 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM-	SPE-	pH	TEMPER-	TRANS-	OXYGEN,	
		PLING	CIFIC			PAR-		
		DEPTH	DUCT-	(STAND-	ARD	(SECCHI	DIS-	
<b>OCT</b>								
18...	1218	--	--	--	--	42.0	--	
18...	1219	0.0	199	7.6	10.0	--	7.2	
18...	1220	3.00	200	7.6	10.0	--	7.2	
18...	1221	6.00	200	7.6	10.0	--	7.2	
18...	1222	9.00	200	7.6	10.0	--	7.1	
18...	1223	12.0	200	7.6	10.0	--	7.1	
18...	1224	15.0	201	7.6	10.0	--	7.0	
18...	1225	18.0	200	7.6	10.0	--	7.0	
18...	1226	21.0	200	7.6	10.0	--	7.0	
18...	1227	24.0	200	7.6	10.0	--	7.0	
18...	1228	27.0	199	7.5	10.0	--	7.0	
18...	1229	30.0	199	7.5	10.0	--	6.9	
18...	1230	33.0	199	7.5	10.0	--	6.9	
18...	1231	36.0	199	7.5	10.0	--	6.8	
18...	1232	39.0	199	7.5	10.0	--	6.8	
18...	1233	42.0	199	7.5	10.0	--	6.7	
18...	1234	45.0	201	7.3	10.0	--	5.6	

## GREEN RIVER BASIN

## ELKHEAD RESERVOIR NEAR CRAIG, CO--Continued

## WATER-QUALITY RECORDS

403435107222900 ELKHEAD RESERVOIR SITE 2C--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM- PLING (FEET)	CON- DUCT- (US/CM)	pH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TRANSMI- SSION (SECCHI DISK)	OXYGEN, DISSOLVED (MG/L)
<b>MAY</b>							
08...	1354	--	--	--	--	6.00	--
08...	1355	0.0	214	7.5	9.5	--	9.1
08...	1356	3.0	214	7.5	9.5	--	9.1
08...	1357	6.0	214	7.5	9.5	--	9.1
08...	1358	9.0	213	7.5	9.0	--	9.0
08...	1359	12.0	204	7.5	7.5	--	8.9
08...	1400	15.0	183	7.5	7.5	--	9.0
08...	1401	18.0	184	7.5	7.0	--	9.0
08...	1402	21.0	176	7.5	7.0	--	9.0
08...	1403	24.0	170	7.5	7.0	--	9.0
08...	1404	27.0	167	7.5	6.5	--	9.0
08...	1405	30.0	150	7.5	6.0	--	9.0
08...	1406	33.0	148	7.5	6.0	--	8.9
08...	1407	36.0	145	7.5	6.0	--	9.0
08...	1408	39.0	143	7.5	6.0	--	9.0
08...	1409	42.0	144	7.5	6.0	--	9.0
08...	1410	45.0	145	7.5	6.0	--	8.9
08...	1411	46.0	146	7.5	6.0	--	8.9
<b>JUL</b>							
24...	1144	--	--	--	--	84.0	--
24...	1145	0.0	238	8.2	21.5	--	6.7
24...	1146	3.0	238	8.2	21.5	--	7.1
24...	1147	6.0	238	8.1	21.0	--	7.0
24...	1148	9.0	239	8.1	20.5	--	7.0
24...	1149	12.0	241	8.2	20.5	--	6.6
24...	1150	15.0	229	7.9	20.0	--	6.4
24...	1151	18.0	227	7.6	18.5	--	5.7
24...	1152	21.0	218	7.3	15.0	--	3.1
24...	1153	24.0	204	7.2	13.0	--	2.4
<b>SEP</b>							
04...	1103	--	--	--	--	72.0	--
04...	1104	0.0	237	8.2	18.5	--	6.9
04...	1105	2.0	237	8.2	18.5	--	7.3
04...	1106	4.0	237	8.2	18.5	--	7.5
04...	1107	6.0	237	8.2	18.5	--	7.0
04...	1108	8.0	237	8.2	18.5	--	7.0
04...	1109	10.0	238	8.2	18.5	--	6.9
04...	1110	12.0	238	8.2	18.0	--	6.8
04...	1111	14.0	237	8.1	18.0	--	6.6
04...	1112	16.0	236	8.1	18.0	--	6.5
04...	1113	18.0	235	8.1	18.0	--	6.4
04...	1114	20.0	225	7.6	17.0	--	3.6
04...	1115	22.0	209	7.3	15.0	--	0.7
04...	1116	24.0	203	7.2	13.5	--	0.1
04...	1117	26.0	201	7.1	13.0	--	0.0
04...	1118	28.0	192	7.1	12.0	--	0.0
04...	1119	30.0	187	7.1	11.5	--	0.0

## ELKHEAD RESERVOIR NEAR CRAIG, CO--Continued

## WATER-QUALITY RECORDS

## 403336107230700 ELKHEAD RESERVOIR SITE 3A

LOCATION.--Lat 40°33'36", long 107°23'07", in SE<sup>1/4</sup>SW<sup>1/4</sup>, sec.16, T.7 N., R.89 W., Moffat County, Hydrologic Unit 14050001, approximately 60 ft from northwest shore in transect approximately 800 ft upstream from Elkhead Dam.

PERIOD OF RECORD.--July 1995 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCt- ANCE (US/Cm)	pH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DIS- K) (IN)	OXYGEN, DIS- SOLVED (MG/L)
<b>OCT</b>							
18...	1250	--	--	--	--	42.0	--
18...	1251	0.0	189	7.5	10.5	--	6.9
18...	1252	3.0	190	7.5	10.0	--	7.0
18...	1253	6.0	189	7.5	10.0	--	7.0
18...	1254	9.0	189	7.5	10.0	--	6.9
18...	1255	12.0	190	7.5	10.0	--	7.0
18...	1256	15.0	189	7.5	10.0	--	6.9
18...	1257	18.0	190	7.5	10.0	--	6.9
18...	1258	21.0	189	7.5	10.0	--	6.9
18...	1259	23.0	189	7.5	10.0	--	6.8
<b>MAY</b>							
08...	1549	--	--	--	--	6.00	--
08...	1550	0.0	213	7.5	6.5	--	9.1
08...	1551	3.0	213	7.5	6.5	--	9.1
08...	1552	6.0	210	7.5	6.0	--	9.0
08...	1553	9.0	208	7.5	6.0	--	9.0
08...	1554	12.0	205	7.5	6.0	--	8.9
08...	1555	15.0	204	7.5	6.0	--	9.0
08...	1556	18.0	201	7.5	6.0	--	9.0
08...	1557	21.0	192	7.5	6.0	--	9.0
08...	1558	24.0	186	7.5	6.0	--	9.0
08...	1559	27.0	183	7.5	6.0	--	9.0
08...	1600	30.0	181	7.5	6.0	--	9.0
08...	1601	33.0	179	7.5	6.0	--	8.9
<b>JUL</b>							
24...	1249	--	--	--	--	96.0	--
24...	1250	0.0	228	8.1	21.5	--	8.2
24...	1251	3.0	229	8.1	21.5	--	8.1
24...	1252	6.0	231	8.1	21.0	--	8.1
24...	1253	9.0	232	8.1	20.5	--	8.1
24...	1254	12.0	231	8.1	20.5	--	8.0
24...	1255	15.0	231	8.1	20.5	--	8.1
24...	1256	18.0	203	7.4	16.0	--	7.3
24...	1257	21.0	189	7.2	14.0	--	7.2
24...	1258	24.0	183	7.2	12.0	--	7.2
24...	1259	27.0	178	7.1	11.0	--	4.8
24...	1300	30.0	175	7.1	10.5	--	5.2
24...	1301	33.0	171	7.1	10.0	--	5.8
24...	1302	36.0	169	7.1	9.5	--	6.0
24...	1303	39.0	168	7.1	9.0	--	6.2
<b>SEP</b>							
04...	0846	--	--	--	--	90.0	--
04...	0847	0.0	234	8.3	18.0	--	8.1
04...	0848	3.0	234	8.2	18.0	--	7.0
04...	0849	6.0	234	8.2	18.0	--	7.0
04...	0850	9.0	235	8.2	18.0	--	7.0
04...	0851	12.0	235	8.2	18.0	--	7.0
04...	0852	15.0	235	8.2	18.0	--	7.0
04...	0853	18.0	234	8.2	18.0	--	6.9
04...	0854	21.0	217	7.4	16.0	--	1.9
04...	0855	24.0	187	7.2	13.5	--	0.8
04...	0856	27.0	175	7.2	11.0	--	1.8
04...	0857	30.0	169	7.2	10.0	--	2.8
04...	0858	33.0	167	7.2	9.5	--	2.8

## GREEN RIVER BASIN

**ELKHEAD RESERVOIR NEAR CRAIG, CO--Continued**  
**WATER-QUALITY RECORDS**
**403333107230100 ELKHEAD RESERVOIR SITE 3B**

LOCATION.--Lat 40°33'33", long 107°23'01", in SE<sup>1/4</sup>SW<sup>1/4</sup>, sec.16, T.7 N., R.89 W., Moffat County, Hydrologic Unit 14050001, at approximate center of transect approximately 800 ft upstream from Elkhead Dam.

PERIOD OF RECORD.--July 1995 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SPE-			TRANS-	PAR-	OXYGEN,
		SAM- PLING	CON- DUCt-	pH (STAND- ANCE)	TEMPER- ATURE (DEG C)		
OCT							
18...	1300	--	--	--	--	42.0	--
18...	1301	0.0	188	7.5	11.0	--	7.0
18...	1302	3.0	190	7.5	10.0	--	7.0
18...	1303	6.0	190	7.5	10.0	--	7.0
18...	1304	9.0	190	7.5	10.0	--	6.9
18...	1305	12.0	189	7.5	10.0	--	6.9
18...	1306	15.0	190	7.5	10.0	--	6.9
18...	1307	18.0	190	7.5	10.0	--	6.9
18...	1308	21.0	189	7.5	10.0	--	6.9
18...	1309	24.0	189	7.5	10.0	--	6.9
18...	1310	27.0	190	7.5	10.0	--	6.9
18...	1311	30.0	189	7.5	10.0	--	6.9
18...	1312	33.0	189	7.5	10.0	--	6.8
18...	1313	36.0	189	7.5	10.0	--	6.8
18...	1314	39.0	189	7.5	10.0	--	6.8
18...	1315	42.0	189	7.5	10.0	--	6.8
18...	1316	45.0	185	7.2	9.5	--	5.1
18...	1317	48.0	177	6.9	9.0	--	2.9
18...	1318	51.0	175	6.8	8.5	--	1.9
18...	1319	54.0	173	6.8	8.5	--	1.2
18...	1320	57.0	174	6.8	8.0	--	1.0
18...	1321	59.0	176	6.7	8.0	--	0.5
MAY							
08...	1429	--	--	--	--	6.00	--
08...	1430	0.0	229	7.4	7.0	--	9.2
08...	1431	3.0	232	7.5	7.0	--	9.1
08...	1432	6.0	232	7.5	6.5	--	9.0
08...	1433	9.0	232	7.5	6.5	--	9.0
08...	1434	12.0	229	7.4	6.5	--	9.0
08...	1435	15.0	226	7.4	6.0	--	8.9
08...	1436	18.0	218	7.4	6.0	--	9.0
08...	1437	21.0	192	7.5	6.0	--	9.0
08...	1438	24.0	194	7.5	6.0	--	9.0
08...	1439	27.0	188	7.5	6.0	--	9.0
08...	1440	30.0	184	7.5	6.5	--	9.0
08...	1441	33.0	180	7.5	6.5	--	9.0
08...	1442	36.0	179	7.5	6.0	--	9.0
08...	1443	39.0	182	7.5	6.0	--	9.0
08...	1444	42.0	180	7.5	6.0	--	9.0
08...	1446	45.0	178	7.5	6.0	--	8.9
08...	1447	48.0	173	7.5	6.0	--	8.9
08...	1448	51.0	169	7.5	6.0	--	8.9
08...	1449	54.0	167	7.5	6.0	--	8.8
08...	1450	57.0	165	7.5	6.0	--	8.9
08...	1451	58.0	164	7.5	6.0	--	8.8
JUL							
24...	1339	--	--	--	--	96.0	--
24...	1340	0.0	228	8.2	22.5	--	8.1
24...	1341	3.0	228	8.2	22.5	--	8.0
24...	1342	6.0	230	8.2	21.5	--	8.1
24...	1343	9.0	230	8.2	21.0	--	8.3
24...	1344	12.0	229	8.2	20.5	--	8.1
24...	1345	15.0	222	7.9	19.5	--	6.7
24...	1346	18.0	217	7.7	18.0	--	5.4
24...	1347	21.0	194	7.4	13.0	--	4.1
24...	1348	24.0	184	7.3	12.0	--	4.4
24...	1349	27.0	178	7.3	11.0	--	4.9
24...	1350	30.0	176	7.2	10.5	--	5.2
24...	1351	33.0	172	7.3	10.0	--	5.8
24...	1352	36.0	168	7.3	9.0	--	6.5
24...	1353	39.0	167	7.3	9.0	--	6.6
24...	1354	42.0	167	7.3	9.0	--	6.4
24...	1355	45.0	166	7.3	8.5	--	6.5
24...	1356	48.0	167	7.2	8.5	--	5.9
24...	1357	51.0	168	7.2	8.5	--	5.6
24...	1358	54.0	168	7.1	8.0	--	5.3
24...	1359	57.0	169	7.1	8.0	--	4.3
24...	1400	60.0	171	7.1	8.0	--	3.8
24...	1401	63.0	173	7.0	8.0	--	3.2
24...	1402	64.0	174	7.0	8.0	--	2.7

## ELKHEAD RESERVOIR NEAR CRAIG, CO--Continued

## WATER-QUALITY RECORDS

403333107230100 ELKHEAD RESERVOIR SITE 3B--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	pH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (IN)	OXYGEN, DIS- SOLVED (MG/L)		
<b>SEP</b>									
04...	0924	--	--	--	--	90.0	--		
04...	0925	0.0	233	8.2	18.5	--	7.9		
04...	0926	3.0	234	8.2	18.0	--	6.9		
04...	0927	6.0	234	8.2	18.0	--	6.9		
04...	0928	9.0	234	8.2	18.0	--	6.9		
04...	0929	12.0	234	8.2	18.0	--	6.9		
04...	0930	15.0	234	8.2	18.0	--	6.9		
04...	0931	18.0	234	8.2	18.0	--	6.9		
04...	0932	21.0	217	7.5	16.5	--	2.7		
04...	0933	24.0	195	7.2	13.5	--	1.0		
04...	0934	27.0	178	7.2	11.0	--	2.0		
04...	0935	30.0	172	7.2	10.0	--	2.4		
04...	0936	33.0	168	7.2	9.5	--	2.9		
04...	0937	36.0	166	7.2	9.5	--	3.1		
04...	0938	39.0	166	7.2	9.0	--	3.3		
04...	0939	42.0	165	7.2	9.0	--	3.3		
04...	0940	45.0	166	7.2	8.5	--	2.9		
04...	0941	48.0	166	7.2	8.5	--	2.4		
04...	0942	51.0	168	7.1	8.5	--	1.8		
04...	0943	54.0	169	7.1	8.5	--	1.3		
04...	0944	57.0	169	7.1	8.0	--	0.9		
04...	0945	60.0	171	7.1	8.0	--	0.6		
04...	0946	62.0	173	7.1	8.0	--	0.3		
 <b>NITRO-</b>									
<b>GEN,</b>									
<b>NO<sub>2</sub>+NO<sub>3</sub></b>									
DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	pH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	NITRO- GEN, DIS- SOLVED (MG/L AS N)		
<b>OCT</b>									
18...	1335	2.0	189	7.5	10.5	7.0	<0.001 0.033		
18...	1345	56.0	174	6.8	8.0	1.2	0.002 0.170		
<b>MAY</b>									
08...	1445	2.0	232	7.4	7.0	9.0	0.005 0.140		
08...	1500	56.0	167	7.5	6.0	8.9	0.004 0.160		
<b>JUL</b>									
24...	1410	6.0	230	8.2	21.5	8.1	0.002 <0.005		
24...	1420	62.0	169	7.1	8.0	3.5	0.003 0.094		
<b>SEP</b>									
04...	0955	5.00	234	8.2	18.0	6.9	<0.001 <0.005		
04...	1010	57.0	169	7.1	8.0	0.9	<0.001 0.200		
 <b>NITRO-</b>									
<b>GEN,</b>									
<b>AMMONIA</b>									
DATE		NITRO- GEN, AM- MONIA + DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- ORGANIC DIS- SOLVED (MG/L AS P)	PHOS- PHORUS TOTAL DIS. (MG/L AS P)	PHOS- PHORUS TOTAL DIS. (MG/L AS P)	PHOS- PHORUS ORTHOPHOSPHATE DIS- SOLVED (MG/L AS P)	CHLOR-A PHYTO- PLANKTON TON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTO- PLANKTON TON CHROMO FLUOROM (UG/L)
<b>OCT</b>									
18...	<0.002	0.20	<0.20	0.017	0.009	<0.001	0.8	<0.1	
18...	<0.002	0.30	0.30	0.040	0.017	0.003	0.2	<0.1	
<b>MAY</b>									
08...	0.015	0.50	0.40	0.017	0.017	0.010	<0.1	<0.1	
08...	0.003	0.70	0.30	0.014	0.014	0.010	<0.1	<0.1	
<b>JUL</b>									
24...	<0.002	0.30	0.30	0.012	0.007	<0.001	--	--	
24...	0.006	0.40	0.30	0.046	0.012	0.002	--	--	
<b>SEP</b>									
04...	<0.002	0.30	0.20	0.012	0.005	<0.001	e0.3	<0.1	
04...	<0.002	0.40	0.40	0.062	0.008	<0.001	0.1	<0.1	

e-Estimated.

## GREEN RIVER BASIN

## ELKHEAD RESERVOIR NEAR CRAIG, CO--Continued

## WATER-QUALITY RECORDS

## 403331107225500 ELKHEAD RESERVOIR SITE 3C

LOCATION.--Lat 40°33'31", long 107°22'55", in SE<sup>1/4</sup>SW<sup>1/4</sup>, sec.16, T.7 N., R.89 W., Moffat County, Hydrologic Unit 14050001, approximately 40 ft from southeast shore in transect approximately 800 ft upstream from Elkhead Dam.

PERIOD OF RECORD.--July 1995 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM- PLING	CON- DUCt-	SPE- CIFIC (STAND- ANCE (US/CM))	pH ARD (FEET)	TEMPER- ATURE WATER UNITS)	TRANS- PAR- (SECCHI DISK) (DEG C)	OXYGEN, DIS- SOLVED (IN) (MG/L)
<b>OCT</b>								
18...	1415	--	--	--	--	--	42.0	--
18...	1416	0.0	190	7.5	10.5	--	7.2	
18...	1417	3.0	189	7.5	10.5	--	7.2	
18...	1418	6.0	189	7.5	10.5	--	7.1	
18...	1419	9.0	190	7.5	10.0	--	7.0	
18...	1420	12.0	190	7.5	10.0	--	7.0	
18...	1421	15.0	189	7.5	10.0	--	6.9	
18...	1422	18.0	190	7.5	10.0	--	6.9	
18...	1423	21.0	190	7.5	10.0	--	6.9	
18...	1424	24.0	190	7.5	10.0	--	6.9	
18...	1425	27.0	190	7.5	10.0	--	6.9	
18...	1426	30.0	190	7.5	10.0	--	6.9	
18...	1427	33.0	189	7.5	10.0	--	6.9	
18...	1428	36.0	190	7.5	10.0	--	6.9	
18...	1429	39.0	189	7.5	10.0	--	6.9	
18...	1430	42.0	189	7.5	10.0	--	6.8	
18...	1431	45.0	189	7.4	10.0	--	6.8	
18...	1432	48.0	176	7.0	9.0	--	3.2	
18...	1433	51.0	174	6.9	8.5	--	2.1	
18...	1434	54.0	173	6.8	8.5	--	1.4	
18...	1435	57.0	176	6.8	8.0	--	0.7	
18...	1436	59.0	176	6.7	8.0	--	0.6	
<b>MAY</b>								
08...	1529	--	--	--	--	6.00	--	
08...	1530	0.0	243	7.5	8.0	--	9.0	
08...	1531	3.0	242	7.5	7.5	--	9.0	
08...	1532	6.0	243	7.5	7.5	--	9.0	
08...	1533	9.0	243	7.5	7.5	--	9.0	
08...	1534	12.0	242	7.5	7.5	--	9.0	
08...	1535	15.0	240	7.5	7.0	--	9.0	
08...	1536	18.0	240	7.5	7.0	--	8.9	
08...	1537	21.0	236	7.5	7.0	--	8.9	
08...	1538	24.0	192	7.5	6.0	--	9.0	
08...	1539	27.0	190	7.5	6.0	--	9.0	
08...	1540	30.0	186	7.5	6.0	--	9.0	
08...	1541	33.0	186	7.5	6.0	--	9.0	
08...	1542	36.0	185	7.5	6.0	--	8.9	
08...	1543	39.0	181	7.5	6.0	--	8.9	
08...	1544	42.0	180	7.5	6.0	--	8.9	
08...	1545	45.0	176	7.5	6.0	--	8.8	
08...	1546	48.0	172	7.5	6.0	--	8.8	
08...	1547	51.0	170	7.5	6.0	--	8.8	
08...	1548	54.0	170	7.5	6.0	--	8.8	
08...	1549	57.0	165	7.5	6.0	--	8.8	
08...	1550	60.0	164	7.5	6.0	--	8.8	
08...	1551	63.0	163	7.5	6.0	--	8.8	
08...	1552	65.0	162	7.5	6.0	--	8.8	
<b>JUL</b>								
24...	1319	--	--	--	--	96.0	--	
24...	1320	0.0	227	8.2	23.0	--	--	
24...	1321	3.0	228	8.2	22.5	--	--	
24...	1322	6.0	228	8.2	21.5	--	8.2	
24...	1323	9.0	230	8.2	21.0	--	8.3	
24...	1324	12.0	230	8.2	20.5	--	8.2	
24...	1325	15.0	227	8.1	20.5	--	7.5	
24...	1326	18.0	216	7.6	17.5	--	5.1	
24...	1327	21.0	191	7.4	13.5	--	4.3	
24...	1328	24.0	184	7.3	12.0	--	4.6	
24...	1329	27.0	180	7.3	11.5	--	4.7	
<b>SEP</b>								
04...	0909	--	--	--	--	90.0	--	
04...	0910	0.0	234	8.2	18.0	--	7.1	
04...	0911	3.0	234	8.2	18.0	--	7.0	
04...	0912	6.0	235	8.2	18.0	--	7.0	
04...	0913	9.0	235	8.2	18.0	--	7.0	
04...	0914	12.0	234	8.2	18.0	--	7.0	
04...	0915	15.0	234	8.2	18.0	--	7.0	

**09246400 ELKHEAD CREEK BELOW MAYNARD GULCH, NEAR CRAIG, CO**

LOCATION.--Lat 40°32'31", long 107°23'50", in SW<sup>1/4</sup>SE<sup>1/4</sup> sec.20, T.7 N., R.89 W., Moffat County, Hydrologic Unit 14050001, on left bank 2.0 mi downstream from Maynard Gulch, and 8.5 mi northeast of Craig.

DRAINAGE AREA.--212 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--August 1995 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,280 ft above sea level, from topographic map.

REMARKS.--Record good except for estimated daily discharges, which are poor. Natural flow affected by diversions for irrigation of several hundred acres upstream from station and storage in Elkhead Reservoir.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	11	15	e13	e16	16	304	406	316	24	6.1	1.5
2	3.0	16	16	e13	e16	15	440	433	290	21	5.0	1.4
3	2.8	14	16	e15	e16	15	466	538	267	17	5.4	1.5
4	4.5	10	16	e14	e16	14	355	676	246	16	5.3	1.5
5	5.4	8.4	15	e14	e16	15	298	804	234	15	4.7	1.9
6	4.5	8.5	17	e13	e16	15	324	1100	221	14	5.1	2.3
7	4.6	7.9	17	e14	e16	14	374	1250	205	13	3.5	2.2
8	5.5	8.4	16	e14	e16	14	438	1020	183	11	3.0	1.9
9	5.3	11	14	e14	e16	13	615	1470	166	9.7	2.5	1.8
10	5.7	16	15	e14	e16	14	774	1360	151	9.3	2.5	1.7
11	5.9	13	14	e14	e16	15	831	1040	132	8.6	2.5	1.9
12	7.2	10	14	e14	e17	19	584	1100	124	6.8	2.4	2.3
13	5.4	12	17	e14	e17	21	468	1140	106	6.2	1.9	2.4
14	5.2	18	17	e14	e17	24	344	1110	91	5.6	1.9	2.4
15	5.2	25	14	e14	e17	29	283	1050	86	4.3	2.1	2.5
16	5.2	24	13	e15	e18	36	287	953	79	3.8	1.5	2.2
17	5.3	22	13	e16	e18	45	380	1110	69	6.1	1.6	2.5
18	4.9	19	e14	e17	e18	46	333	955	60	6.4	1.8	2.3
19	4.9	16	e13	e18	15	42	307	723	52	7.1	1.9	2.4
20	4.5	15	14	e17	17	38	249	589	47	6.6	1.7	2.5
21	4.2	15	14	e16	20	36	227	483	55	6.1	1.7	2.3
22	7.2	14	e13	e17	26	44	208	419	79	4.0	1.7	2.4
23	7.0	13	e13	e15	25	98	198	399	73	3.2	1.6	2.6
24	6.9	13	e13	e15	18	163	346	417	53	2.9	1.5	2.4
25	6.6	12	e13	e15	17	124	731	448	42	2.8	1.5	2.8
26	7.2	14	14	e15	17	93	699	588	36	2.6	1.5	2.6
27	7.4	15	14	e15	18	75	630	488	36	2.4	1.8	2.7
28	7.4	14	13	e15	18	77	554	424	35	2.4	1.7	2.4
29	7.0	14	9.6	e15	17	114	408	438	33	2.7	1.6	2.3
30	7.1	13	11	e16	--	162	384	378	29	4.7	1.6	2.2
31	9.7	--	e12	e16	--	217	--	347	--	6.0	1.6	--
TOTAL	175.7	422.2	439.6	461	506	1663	12839	23656	3596	251.3	80.2	65.8
MEAN	5.67	14.1	14.2	14.9	17.4	53.6	428	763	120	8.11	2.59	2.19
MAX	9.7	25	17	18	26	217	831	1470	316	24	6.1	2.8
MIN	2.8	7.9	9.6	13	15	13	198	347	29	2.4	1.5	1.4
AC-FT	349	837	872	914	1000	3300	25470	46920	7130	498	159	131

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1996, BY WATER YEAR (WY)

MEAN	5.67	14.1	14.2	14.9	17.4	53.6	428	763	120	8.11	2.59	2.41
MAX	5.67	14.1	14.2	14.9	17.4	53.6	428	763	120	8.11	2.59	2.63
(WY)	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996	1995
MIN	5.67	14.1	14.2	14.9	17.4	53.6	428	763	120	8.11	2.59	2.19
(WY)	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996

SUMMARY STATISTICS	FOR 1996 WATER YEAR						WATER YEARS 1995 - 1996					
ANNUAL TOTAL	44155.8											
ANNUAL MEAN	121											
HIGHEST ANNUAL MEAN	121						1996					
LOWEST ANNUAL MEAN	121						1996					
HIGHEST DAILY MEAN	1470						1996					
LOWEST DAILY MEAN	1.4						1996					
ANNUAL SEVEN-DAY MINIMUM	1.5						1996					
INSTANTANEOUS PEAK FLOW	1890						1996					
INSTANTANEOUS PEAK STAGE	6.20						1996					
ANNUAL RUNOFF (AC-FT)	87580											
10 PERCENT EXCEEDS	427											
50 PERCENT EXCEEDS	15											
90 PERCENT EXCEEDS	2.4											

e-Estimated.

## GREEN RIVER BASIN

**09246400 ELKHEAD CREEK BELOW MAYNARD GULCH, NEAR CRAIG, CO--Continued****WATER-QUALITY RECORDS**

PERIOD OF RECORD.--July 1995 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANC: August 1995 to current year.

WATER TEMPERTURE: August 1995 to current year.

INSTRUMENTATION.--Water-quality monitor with satellite telemetry.

REMARKS.--Prior to July 1995 no previous water-quality at this site.

SPECIFIC CONDUCTANCE: Maximum, 391 microsiemens, April 11, 1996; minimum, 126 microsiemens, May 19, 1996.

WATER TEMPERATURE: Maximum, 31.3 deg C, July 24, 1996; minimum, 0.0 deg C, many days during the winter months

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 391 microsiemens, April 11; minimum, 126 microsiemens, May 19.

WATER TEMPERATURE: Maximum, 31.3 deg C, July 24; minimum, 0.0 deg C, many days during the winter months

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-	CHARGE,	SPE-	PH	TEMPER-	TUR-	HARD-	CALCIUM	MAGNE-	SODIUM,
		CHARGE, INST. CUBIC FEET	CIFIC CON- DUCT- ANCE	(STAND- ARD UNITS)		ATURE WATER (DEG C)	BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)		SIUM, DIS- SOLVED (MG/L AS MG)	
OCT 19...	0915	4.6	214	7.9	7.0	14	8.7	85	22	7.3	9.1
NOV 20...	0900	13	218	8.1	4.5	9.7	10.4	88	23	7.3	9.6
JAN 19...	1400	18	236	8.1	0.0	5.1	10.5	100	26	8.9	11
FEB 22...	1200	25	240	7.8	2.5	5.9	10.6	98	25	8.7	12
MAR 27...	1300	71	257	8.2	7.0	3.5	10.5	100	26	8.6	13
APR 22...	1400	214	322	8.5	7.0	52	10.7	120	28	11	19
MAY 09...	0930	1880	220	7.8	8.5	270	10.0	58	15	4.9	5.0
JUN 17...	1200	69	175	8.4	18.5	7.4	8.6	73	19	6.2	7.6
JUL 25...	0930	2.9	260	8.5	20.5	--	7.2	98	25	8.6	13
AUG 16...	1115	2.0	294	8.3	21.0	2.8	8.1	100	26	9.7	17
SEP 04...	1500	1.6	280	8.8	22.0	8.1	7.7	100	26	9.5	15
DATE	RATIO	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- TION RATIO	ALKA- LINITY LAB DIS- SOLVED (MG/L AS CACO3)	SULFATE (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDs, RESIDUE AT 180 DEG. C (MG/L)	SOLIDs, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDs, DIS- SOLVED (TONS PER AC-FT)
OCT 19...	0.4	1.2	83	24	1.4	<0.1	9.1	122	124	0.17	1.52
NOV 20...	0.4	1.2	81	23	1.3	0.2	9.4	122	124	0.17	4.41
JAN 19...	0.5	1.3	90	29	1.7	0.2	11	--	143	0.19	7.16
FEB 22...	0.5	1.3	88	30	1.9	0.1	10	--	142	0.19	9.48
MAR 27...	0.6	1.3	93	34	1.9	0.1	11	--	152	0.21	29.2
APR 22...	0.8	2.3	85	69	2.3	0.1	8.8	--	192	0.26	111
MAY 09...	0.3	1.1	53	15	0.6	<0.1	8.8	--	84	0.11	427
JUN 17...	0.4	1.1	67	14	0.3	0.1	14	--	103	0.14	19.2
JUL 25...	0.6	1.4	95	33	2.6	0.1	9.5	--	150	0.20	1.18
AUG 16...	0.7	1.5	106	39	3.1	0.2	9.7	--	170	0.23	0.93
SEP 04...	0.6	1.5	104	36	2.5	0.1	9.6	--	163	0.22	0.70

## GREEN RIVER BASIN

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## 09246400 ELKHEAD CREEK BELOW MAYNARD GULCH, NEAR CRAIG, CO--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO-GEN, NITRITE SOLVED (MG/L AS N)	NITRO-GEN, NO <sub>2</sub> +NO <sub>3</sub> SOLVED (MG/L AS N)	NITRO-GEN, AM- DIS- SOLVED (MG/L AS N)	NITRO-GEN, AM- MONIA + DIS- SOLVED (MG/L AS N)	NITRO-GEN, AM- MONIA + ORGANIC DIS. TOTAL (MG/L AS N)	PHOS- PHORUS DIS. TOTAL (MG/L AS P)	PHOS- PHORUS DIS. SOLVED (MG/L AS P)	PHOS- PHORUS DIS. SOLVED (MG/L AS P)	CARBON, CARBON, TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	
OCT 19...	<0.01	0.06	<0.02	0.3	0.2	0.03	<0.01	0.01	6.6	5.6	
NOV 20...	<0.01	<0.05	<0.02	0.2	0.3	<0.01	<0.01	0.01	--	--	
JAN 19...	<0.01	0.07	<0.02	0.3	0.2	<0.01	<0.01	<0.01	--	--	
FEB 22...	<0.01	0.09	0.02	0.4	<0.2	<0.01	<0.01	<0.01	--	--	
MAR 27...	0.02	0.09	0.02	0.3	0.3	0.03	0.04	<0.01	--	--	
APR 22...	<0.01	0.19	<0.02	0.5	0.4	0.09	0.02	0.02	--	--	
MAY 09...	<0.01	0.24	0.02	0.6	0.3	0.13	0.01	0.02	18	6.2	
JUN 17...	0.02	0.07	0.04	0.3	0.2	0.02	<0.01	0.01	--	--	
JUL 25...	<0.01	<0.05	<0.02	0.3	0.2	<0.01	<0.01	<0.01	6.3	5.1	
AUG 16...	0.01	0.07	0.03	0.5	0.2	0.02	<0.01	<0.01	--	--	
SEP 04...	<0.01	<0.05	<0.02	0.4	0.3	0.02	<0.01	<0.01	6.4	6.0	
<hr/>											
DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	
OCT 19...	--	--	--	--	--	--	--	--	--	--	
NOV 20...	--	--	--	--	--	--	--	--	--	--	
FEB 22...	--	--	--	--	--	--	--	<1	--	--	
MAR 27...	120	--	<1	<100	45	<10	20	<1	<1	<1	
MAY 09...	410	1	<1	<100	28	<10	<10	<1	<1	6	
SEP 04...	300	<1	<1	200	46	<10	20	<1	<1	<1	
<hr/>											
DATE	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)
OCT 19...	--	--	--	--	19	--	--	--	--	7	--
NOV 20...	--	--	--	--	17	--	--	--	--	6	--
FEB 22...	--	--	3	390	--	--	<1	--	20	10	--
MAR 27...	<1	3	2	220	22	<1	<1	<10	10	9	--
MAY 09...	6	10	2	8600	620	9	<1	<10	240	14	<0.1
SEP 04...	<1	1	2	500	6	<1	<1	<10	40	5	<0.1

GREEN RIVER BASIN

**09246400 ELKHEAD CREEK BELOW MAYNARD GULCH, NEAR CRAIG, CO--Continued**

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

	MOLBY-		NICKEL,		SELE-		SILVER,		STRON-		ZINC,	
	MERCURY	DENUM,	TOTAL	TOTAL	NICKEL,	SELE-	NIUM,	TOTAL	SILVER,	TIUM,	TOTAL	ZINC,
	DIS-	RECOV-	RECOV-	DIS-	NIUM,	DIS-	RECOV-	DIS-	SILVER,	TIUM,	RECOV-	DIS-
DATE	SOLVED	ERABLE	ERABLE	SOLVED	TOTAL	SOLVED	ERABLE	SOLVED	SOLVED	SOLVED	ERABLE	SOLVED
	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
	AS HG	AS MO	AS NI	AS NI	AS SE	AS SE	AS AG	AS AG	AS SR	AS ZN	AS ZN	AS ZN
OCT												
19...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
20...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
22...	<0.1	--	--	--	--	--	<1	--	<1	--	--	<10
MAR												
27...	<0.1	1	2	2	--	<1	<1	<1	240	<10	4	
MAY												
09...	<0.1	<1	13	3	<1	<1	<1	--	130	30	<3	
SEP												
04...	<0.1	1	2	2	<1	<1	<1	--	270	<10	4	

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

		DIS- CHARGE, INST. CUBIC FEET	SEDI- MENT, DIS- MENT, SUS-	SEDI- MENT, DIS- CHARGE, SUS-		DIS- CHARGE, INST. CUBIC FEET	SEDI- MENT, DIS- MENT, SUS-			
DATE	TIME	PER SECOND	PENDED (MG/L)	PENDED (T/DAY)		DATE	TIME	PER SECOND	PENDED (MG/L)	PENDED (T/DAY)
OCT 19...	0915	4.6	16	0.20		MAY 09...	0930	1880	335	1700
NOV 20...	0900	13	39	1.4		JUN 17...	1200	69	9	1.6
JAN 19...	1400	18	11	0.54		JUL 25...	0930	2.9	16	0.12
FEB 22...	1200	25	32	2.1		AUG 16...	1115	2.0	11	0.06
MAR 27...	1300	71	10	1.9		SEP 04...	1500	1.6	16	0.07
APR 22...	1400	214	79	46						

## GREEN RIVER BASIN

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## 09246400 ELKHEAD CREEK BELOW MAYNARD GULCH, NEAR CRAIG, CO--Continued

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER												
NOVEMBER												
1	269	261	265	216	210	213	238	233	236	---	---	---
2	271	264	268	212	210	211	236	232	234	---	---	---
3	276	269	272	214	209	212	236	233	234	---	---	---
4	271	257	262	218	212	214	235	233	234	---	---	---
5	258	246	252	221	217	218	237	234	235	---	---	---
6	253	242	247	225	221	222	235	233	233	---	---	---
7	244	237	240	226	221	224	234	232	233	---	---	---
8	238	234	236	224	221	222	236	232	234	---	---	---
9	237	230	234	224	216	220	237	235	236	---	---	---
10	231	227	229	216	213	214	237	234	235	---	---	---
11	229	224	227	218	214	216	236	233	235	---	---	---
12	225	221	223	224	216	219	237	234	235	---	---	---
13	227	221	223	224	219	222	237	234	235	---	---	---
14	224	220	222	221	213	217	235	232	233	---	---	---
15	225	221	223	215	211	213	239	234	236	---	---	---
16	225	221	223	215	210	212	241	238	239	---	---	---
17	225	221	223	215	206	211	244	240	241	---	---	---
18	226	223	224	216	211	214	251	243	246	---	---	---
19	227	216	220	218	213	216	258	247	250	---	---	---
20	228	218	223	223	216	219	255	248	251	---	---	---
21	228	225	227	225	221	223	254	249	254	---	---	---
22	233	218	222	226	221	223	277	252	262	---	---	---
23	222	214	219	227	222	225	288	257	267	---	---	---
24	217	213	215	229	225	227	277	260	271	---	---	---
25	220	215	218	230	226	228	281	267	276	---	---	---
MONTH	276	213	231	238	206	221	---	---	---	---	---	---
FEBRUARY												
MARCH												
1	---	---	---	248	241	244	278	265	269	323	314	318
2	---	---	---	249	243	246	304	278	293	320	310	315
3	---	---	---	249	246	248	314	303	308	312	299	306
4	---	---	---	252	246	248	312	300	307	299	279	289
5	---	---	---	248	244	247	307	300	303	280	265	273
6	---	---	---	246	243	245	316	306	314	266	259	261
7	---	---	---	248	245	246	327	316	323	260	253	256
8	---	---	---	251	245	248	336	321	330	254	229	240
9	---	---	---	251	246	248	357	330	352	235	217	228
10	---	---	---	256	248	251	367	357	362	237	158	206
11	---	---	---	253	247	251	391	367	382	162	150	156
12	---	---	---	258	246	253	377	346	360	151	146	148
13	---	---	---	255	247	251	354	336	345	146	139	143
14	---	---	---	257	247	252	339	318	330	139	135	137
15	---	---	---	257	247	251	323	310	317	136	132	134
16	---	---	---	252	244	248	315	297	308	138	129	133
17	---	---	---	250	239	244	306	298	302	133	129	130
18	---	---	---	245	238	241	311	301	303	134	128	130
19	---	---	---	244	240	242	313	304	308	129	126	128
20	---	---	---	246	240	243	313	287	302	130	127	128
21	---	---	---	248	242	245	---	---	---	130	128	129
22	243	232	239	250	244	248	---	---	---	130	128	129
23	250	236	243	250	243	247	319	296	317	129	128	129
24	249	239	244	257	248	252	320	316	318	130	128	128
25	247	240	244	259	254	256	317	314	315	131	129	129
26	248	239	245	260	258	259	319	315	316	135	130	132
27	245	240	243	260	252	257	320	314	316	138	133	135
28	247	240	243	259	254	256	316	314	315	143	137	139
29	250	240	245	260	256	258	318	313	315	146	141	143
30	---	---	---	263	256	259	321	313	315	149	145	146
31	---	---	---	269	261	264	---	---	---	156	149	152
MONTH	---	---	---	269	238	250	---	---	---	323	126	179

## GREEN RIVER BASIN

**09246400 ELKHEAD CREEK BELOW MAYNARD GULCH, NEAR CRAIG, CO--Continued**

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	159	155	157	196	192	194	247	239	243	291	286	288
2	161	156	159	198	194	196	248	240	246	291	285	288
3	163	160	161	202	197	199	250	246	248	290	285	287
4	164	161	163	203	198	201	250	245	248	291	284	288
5	165	163	164	206	202	204	254	248	251	294	288	290
6	166	164	165	209	205	207	257	249	252	294	284	287
7	168	165	166	209	205	207	261	254	258	289	283	286
8	167	165	166	210	207	209	261	252	255	295	285	287
9	168	166	167	211	208	210	273	261	267	290	273	287
10	168	166	167	212	209	211	277	272	273	292	287	290
11	170	166	168	214	210	212	282	276	279	295	290	292
12	171	166	168	216	211	214	284	279	280	295	289	292
13	171	168	169	221	214	218	284	278	282	294	288	291
14	171	168	170	225	216	219	287	278	284	291	286	288
15	174	171	173	---	---	---	290	281	284	287	282	285
16	175	170	172	---	---	---	293	284	289	291	286	289
17	176	170	173	231	225	229	293	283	288	290	284	287
18	179	171	175	225	222	223	292	285	288	291	287	289
19	177	171	175	222	216	219	295	289	292	294	289	291
20	179	176	177	219	215	217	294	283	289	293	290	292
21	182	177	179	223	214	218	290	281	286	293	288	290
22	182	172	177	---	---	---	289	281	285	291	289	290
23	180	172	175	---	---	---	288	281	285	290	285	288
24	181	176	179	---	---	---	290	262	283	292	284	288
25	184	178	180	---	---	---	290	283	287	289	284	286
MONTH	193	155	173	---	---	---	298	239	276	295	273	288

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	15.8	9.4	11.9	8.1	5.2	7.1	4.9	2.2	3.3	---	---	---
2	15.7	10.2	12.7	5.2	2.6	4.0	4.6	2.6	3.4	---	---	---
3	15.9	10.3	12.8	5.2	1.9	3.4	4.3	2.6	3.3	---	---	---
4	12.1	8.5	9.9	6.0	2.7	3.9	4.5	2.6	3.5	---	---	---
5	9.6	6.8	8.3	5.0	1.5	3.3	3.8	2.5	3.3	---	---	---
6	11.0	5.5	8.2	5.1	3.2	4.2	4.3	2.9	3.4	---	---	---
7	12.0	6.1	9.2	5.3	3.5	4.3	3.5	2.4	2.9	---	---	---
8	12.9	7.4	10.1	6.6	2.6	4.6	2.8	1.1	2.0	---	---	---
9	12.0	7.4	9.9	5.0	1.3	4.3	3.6	1.5	2.4	---	---	---
10	13.5	7.8	10.7	3.9	2.0	2.8	4.6	2.5	3.3	---	---	---
11	13.7	8.2	11.1	2.8	1.1	1.8	4.0	1.9	2.9	---	---	---
12	11.8	9.1	10.4	3.6	1.1	2.5	3.2	2.2	2.7	---	---	---
13	10.7	6.1	8.5	5.4	3.2	4.4	4.6	2.5	3.4	---	---	---
14	10.9	5.0	8.1	7.2	4.5	5.7	3.6	1.2	2.5	---	---	---
15	12.0	5.9	9.0	6.6	3.7	5.5	2.0	.3	1.1	---	---	---
16	12.0	6.8	9.5	6.0	3.1	5.0	2.0	.2	1.0	---	---	---
17	12.1	7.1	9.7	6.2	3.6	5.1	1.8	.0	.8	---	---	---
18	11.0	7.2	9.1	5.8	3.0	4.6	1.1	.0	.3	---	---	---
19	10.1	6.6	8.3	6.1	3.3	4.7	.7	.0	.2	---	---	---
20	9.0	3.9	6.7	6.2	3.9	4.8	1.0	.0	.3	---	---	---
21	8.6	4.4	6.9	5.1	2.9	4.0	.7	.0	.3	---	---	---
22	8.2	3.9	5.3	5.7	3.9	4.8	.5	.0	.2	---	---	---
23	6.6	2.3	4.1	6.0	3.8	4.6	.4	.0	.1	---	---	---
24	6.2	1.7	4.3	5.5	3.1	4.1	.4	.0	.1	---	---	---
25	6.9	2.4	4.9	5.8	3.0	4.1	.3	.0	.1	---	---	---
26	7.1	4.4	5.6	3.9	2.1	3.2	.2	.0	.1	---	---	---
27	7.5	3.7	5.6	2.4	.7	1.7	---	---	---	---	---	---
28	7.3	3.2	5.4	.7	.1	.4	---	---	---	---	---	---
29	7.1	4.0	5.8	3.3	.2	1.6	---	---	---	---	---	---
30	10.1	6.2	8.2	4.0	1.4	2.6	---	---	---	---	---	---
31	9.9	8.1	8.9	---	---	---	---	---	---	---	---	---
MONTH	15.9	1.7	8.4	8.1	.1	3.9	---	---	---	---	---	---

## GREEN RIVER BASIN

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## 09246400 ELKHEAD CREEK BELOW MAYNARD GULCH, NEAR CRAIG, CO--Continued

TEMPERATURE, WATER ( DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	3.9	.9	2.1	5.9	3.1	4.1	7.1	6.2	6.7
2	---	---	---	5.5	2.3	3.6	5.0	3.2	3.9	8.0	6.4	7.0
3	---	---	---	5.4	2.2	3.7	4.5	3.2	3.8	8.1	6.5	7.1
4	---	---	---	5.2	3.2	3.9	4.6	3.1	3.6	8.4	6.7	7.4
5	---	---	---	5.4	3.6	4.4	5.7	2.7	3.9	8.4	7.1	7.6
6	---	---	---	4.8	2.2	3.5	5.4	2.7	3.8	8.0	7.2	7.6
7	---	---	---	5.5	2.6	3.7	4.5	2.8	3.5	8.2	7.2	7.6
8	---	---	---	6.5	2.9	4.4	4.7	2.7	3.5	8.9	7.4	8.2
9	---	---	---	7.5	3.9	5.4	4.6	2.8	3.5	8.9	8.1	8.5
10	---	---	---	6.8	4.1	5.2	4.6	3.2	3.6	8.3	6.7	7.6
11	---	---	---	7.5	4.0	5.5	3.9	3.3	3.7	9.4	6.9	8.3
12	---	---	---	5.9	4.4	5.3	5.0	3.8	4.2	9.7	7.7	8.8
13	---	---	---	6.5	3.6	5.2	5.1	3.8	4.3	10.6	8.1	9.4
14	---	---	---	8.2	3.5	6.1	6.4	4.0	4.9	10.4	8.0	9.2
15	---	---	---	8.0	2.4	5.8	7.5	4.1	5.4	10.8	8.6	9.9
16	---	---	---	7.7	2.7	5.6	7.6	4.5	5.6	11.4	8.2	9.9
17	---	---	---	--	--	--	5.7	5.0	5.2	11.5	9.1	10.6
18	---	---	---	7.8	2.2	4.8	6.3	4.5	5.2	11.7	9.7	10.8
19	---	---	---	8.7	1.9	5.0	5.6	4.2	4.7	12.7	10.7	11.4
20	---	---	---	8.8	1.4	5.1	5.7	3.6	4.5	12.4	10.7	11.4
21	---	---	---	9.2	2.1	5.8	7.1	3.1	4.8	12.8	10.8	11.5
22	2.7	1.4	2.0	9.2	3.0	6.0	8.0	4.0	5.7	12.3	10.7	11.5
23	2.3	.3	1.0	7.5	3.3	5.0	9.5	4.4	6.5	11.8	10.6	11.1
24	3.5	.3	1.7	6.2	2.8	4.0	7.3	5.1	6.0	11.5	10.8	11.1
25	4.0	.9	2.5	7.4	2.6	4.4	6.4	5.5	5.9	11.2	10.1	10.8
MONTH	---	---	---	---	---	---	9.5	2.7	4.8	13.3	6.2	9.5
	JUNE			JULY			AUGUST			SEPTEMBER		
1	13.8	10.1	12.1	24.3	17.2	21.2	26.5	18.8	22.2	22.2	15.5	18.9
2	14.3	10.0	11.9	24.7	17.1	21.1	24.9	19.2	21.9	21.8	15.5	18.6
3	15.3	11.3	12.9	24.9	18.2	21.9	23.4	17.9	20.7	22.1	14.8	18.5
4	16.3	12.0	13.7	25.6	18.9	22.4	22.9	17.7	20.2	21.8	15.6	18.8
5	17.3	12.6	14.6	25.5	20.5	22.9	22.3	15.8	19.4	18.4	15.9	17.1
6	17.8	13.1	15.2	24.6	19.4	22.3	22.2	16.3	19.1	18.4	14.4	16.2
7	19.2	14.4	16.4	25.3	18.9	22.2	23.8	15.0	19.3	20.5	13.1	16.6
8	19.4	14.5	16.3	24.9	19.6	22.4	24.9	16.2	20.5	20.1	14.1	17.2
9	19.9	15.3	17.1	22.4	19.2	20.6	24.2	18.3	21.2	21.5	14.3	17.7
10	21.0	15.6	17.6	24.1	17.6	21.0	25.0	17.0	20.8	22.0	14.3	18.1
11	20.8	15.3	17.1	24.6	18.2	21.7	25.6	17.3	21.3	18.7	16.4	17.5
12	20.4	14.7	17.0	25.5	17.7	21.9	24.6	17.6	21.3	20.3	15.6	17.4
13	20.3	14.7	17.2	26.3	18.8	22.7	24.4	17.3	20.9	19.4	15.0	16.9
14	21.3	14.6	17.2	27.5	18.1	23.1	24.7	17.6	20.8	18.4	14.6	16.1
15	18.1	15.3	16.6	26.4	18.5	21.5	24.4	17.8	20.8	20.5	13.7	16.8
16	22.1	15.0	18.0	29.3	16.9	22.2	25.8	17.3	21.7	17.6	13.0	15.6
17	21.3	14.8	17.9	26.1	18.8	22.2	25.6	17.9	21.7	15.8	11.9	13.6
18	22.3	14.4	17.9	24.4	18.7	21.7	23.7	19.4	20.9	14.6	11.6	12.8
19	23.1	13.5	18.1	26.5	18.7	22.5	23.1	16.9	19.3	14.5	10.2	11.6
20	21.6	14.1	17.9	27.2	19.2	23.3	23.4	15.9	19.4	14.4	10.1	11.6
21	18.4	15.3	16.8	26.5	18.3	22.7	23.7	17.8	20.3	14.5	10.2	12.3
22	21.0	15.0	17.6	28.8	17.5	22.9	23.7	16.4	19.7	15.1	11.3	13.1
23	22.3	14.6	18.1	30.4	12.9	22.4	24.4	16.5	20.3	18.0	11.8	14.5
24	23.0	14.8	18.7	31.3	13.8	23.0	25.1	17.2	21.0	17.7	12.4	15.0
25	22.6	14.0	18.3	24.1	16.1	20.6	24.6	17.5	20.9	15.3	11.8	13.6
26	22.8	15.3	19.2	25.6	17.3	21.3	25.0	17.8	20.3	11.8	8.2	10.0
27	20.6	15.9	18.4	26.0	18.0	22.0	24.3	17.8	20.4	11.9	6.0	8.9
28	20.3	15.9	18.1	23.3	19.2	21.5	23.9	18.6	21.1	15.3	8.5	11.5
29	24.1	14.2	19.0	25.1	19.3	21.4	23.3	16.9	20.2	16.5	9.5	12.7
30	25.0	16.3	20.8	25.7	18.5	22.0	22.7	16.3	19.5	16.7	10.2	13.2
31	---	---	---	25.8	18.7	22.3	22.8	16.0	19.3	---	---	---
MONTH	25.0	10.0	16.9	31.3	12.9	22.0	26.5	15.0	20.5	22.2	6.0	15.1

## GREEN RIVER BASIN

## 09247600 YAMPA RIVER BELOW CRAIG, CO

LOCATION.--Lat 40°28'51", long 107°36'49", in SW<sup>1/4</sup>NW<sup>1/4</sup> sec.16, T.6 N., R.91 W., Moffat County, Hydrologic Unit 14050001, on left bank 0.5 mi downstream from state highway 13-789 bridge and 3.3 mi southwest of Craig.

DRAINAGE AREA.--1,750 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1975 to September 1980 (discharge measurements only). October 1984 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,100 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by diversions for irrigation, Colorado Ute Power Plants at Hayden and Craig, transbasin diversions, storage reservoirs, and return flow from irrigated areas.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	568	447	407	e317	e320	e318	1940	3030	4820	2550	460	110
2	461	498	396	e308	e312	e330	2610	3010	4820	2440	402	108
3	438	385	365	e311	e304	e425	3260	3240	4940	2300	363	91
4	434	349	380	e305	e300	e508	3480	3660	5210	2160	390	83
5	512	347	382	e303	e298	e621	e3180	4260	5630	2100	397	93
6	489	350	388	e300	e290	e720	e3050	5080	6200	2090	367	107
7	455	367	407	e306	e285	e819	e3250	5740	6530	1870	e354	105
8	457	353	392	e303	e289	e1000	e3750	5720	6310	1640	337	114
9	456	e360	369	e308	e276	1480	e4750	e6180	6440	1400	319	129
10	440	e450	366	e310	e268	1550	5670	6930	6590	1280	292	133
11	435	e345	366	e305	e270	1680	5830	6920	6640	1150	261	103
12	430	376	342	e301	e265	1950	5900	6900	6730	1040	263	115
13	477	426	384	e306	e262	1970	4910	7530	6330	943	243	127
14	500	493	403	e303	e265	1840	3890	7910	6020	860	e225	126
15	441	607	331	e301	e260	1820	3420	8370	5490	809	e207	166
16	426	549	309	e305	e263	1430	3240	8610	4910	752	e190	170
17	424	498	321	e300	e265	976	3750	9220	4860	732	e183	181
18	400	471	302	e301	e260	747	3610	10500	4710	787	184	194
19	394	439	311	e307	e267	658	3420	9890	4630	841	e172	202
20	404	419	e334	e305	e240	648	2960	8840	4490	806	201	211
21	363	423	e327	e303	e250	702	2620	7510	4850	712	e211	218
22	e370	419	e325	e307	e262	971	2480	6460	6240	660	e200	219
23	404	420	e320	e304	e265	1310	2340	6080	5930	594	e195	261
24	363	390	e285	e301	e261	1380	3190	5940	4620	524	e180	284
25	329	375	e300	e306	e270	1070	5230	5710	4020	471	e167	286
26	374	377	e316	e302	e275	906	5330	6610	3620	446	e155	341
27	395	386	e315	e300	e293	840	4680	6570	3490	426	e143	364
28	380	328	e310	e309	e297	846	4300	5520	3270	405	133	306
29	350	330	e306	e313	e301	1110	3640	5250	3040	401	137	283
30	344	377	e300	e318	--	1370	3190	4970	2710	569	121	328
31	363	--	e310	e314	--	1560	--	4900	--	561	121	--
TOTAL	13076	12354	10669	9482	8033	33555	112870	197060	154090	34319	7573	5558
MEAN	422	412	344	306	277	1082	3762	6357	5136	1107	244	185
MAX	568	607	407	318	320	1970	5900	10500	6730	2550	460	364
MIN	329	328	285	300	240	318	1940	3010	2710	401	121	83
AC-FT	25940	24500	21160	18810	15930	66560	223900	390900	305600	68070	15020	11020

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1996, BY WATER YEAR (WY)

MEAN	311	304	241	222	289	761	2321	4667	4041	1060	253	192
MAX	607	505	407	336	841	1718	4835	7524	8471	3683	543	384
(WY)	1987	1985	1985	1985	1986	1986	1985	1985	1995	1995	1995	1986
MIN	144	165	146	114	111	229	931	2172	1370	233	41.3	50.6
(WY)	1990	1995	1988	1989	1989	1988	1995	1990	1987	1989	1994	1994

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1985 - 1996

ANNUAL TOTAL	644277	598639	
ANNUAL MEAN	1765	1636	1223
HIGHEST ANNUAL MEAN			1910
LOWEST ANNUAL MEAN			734
HIGHEST DAILY MEAN	11300	Jun 18	1986
LOWEST DAILY MEAN	a157	Jan 3	1988
ANNUAL SEVEN-DAY MINIMUM	159	Jan 2	Aug 31 1988
INSTANTANEOUS PEAK FLOW		May 18	Jun 18 1995
INSTANTANEOUS PEAK STAGE		9.86	b9.46
ANNUAL RUNOFF (AC-FT)	1278000	1187000	886300
10 PERCENT EXCEEDS	6400	5550	3980
50 PERCENT EXCEEDS	426	406	350
90 PERCENT EXCEEDS	196	211	147

e-Estimated.

a-Also occurred Jan 8.

b-Maximum gage height for statistical period, 9.86 ft, May 18, 1996.

## GREEN RIVER BASIN

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**09247600 YAMPA RIVER BELOW CRAIG, CO--Continued**  
**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--June 1975 to September 1980. October 1990 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

		DIS- CHARGE , INST. CUBIC FEET	SPE- CIFIC CON- DUCT- PER SECOND	pH (STAND- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	OXYGEN , DIS- SOLVED (MG/L)	COLI- FORM , FECAL , UM-MF (COLS./ 100 ML)	E. COLI WATER WHOLE TOTAL (COL / 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM , DIS- SOLVED (MG/L AS MG)
DATE	TIME										
DEC 01...	1415	428	348	8.7	1.5	11.9	K7	K7	130	32	13
MAR 26...	1400	870	717	8.0	2.5	11.7	130	92	240	48	28
MAY 14...	1340	7460	153	7.9	11.5	10.3	91	66	62	16	5.4
AUG 20...	1230	165	375	8.4	19.5	9.0	43	28	130	31	12

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY SOLVED AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (TONS PER AC-FT)	SOLIDIS, DIS- SOLVED (TONS PER DAY)	
DEC 01...	21	0.8	1.8	105	61	8.4	0.2	8.8	209	0.28	242
MAR 26...	56	2	3.1	132	210	14	0.2	9.9	448	0.61	1050
MAY 14...	4.9	0.3	1.1	51	22	1.1	0.1	9.5	91	0.12	1830
AUG 20	22	0.9	2.4	113	60	8.8	0.2	1.2	205	0.28	91.5

						MANGA-					
	CADMIUM	COPPER ,	IRON ,		LEAD ,	NESE ,	MANGA-		SELE-	SILVER ,	ZINC ,
	DIS- SOLVED	DIS- SOLVED	TOTAL ERABLE	DIS- SOLVED	RECOV- ERABLE	NESE ,	DIS- SOLVED	MERCURY	NIUM ,	DIS- SOLVED	DIS- SOLVED
DATE	(UG/L AS CD)	(UG/L AS CU)	(UG/L AS FE)	(UG/L AS PB)	(UG/L AS MN)	(UG/L AS MN)	(UG/L AS HG)	(UG/L AS SE)	(UG/L AS AG)	(UG/L AS AG)	(UG/L AS ZN)
DEC											
01...	<1		1	270	<1	30	10	<0.1	<1	<0.2	<10
MAR											
26...	<1		3	1200	<1	130	90	<0.1	7	<0.2	<10
MAY											
14...	<1		2	2900	<1	100	7	<0.1	<1	<0.2	4
AUG											
20...	<1		<1	100	<1	40	4	<0.1	<1	<0.2	<3

K-Based on non-ideal colony count.

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

		DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT-	TEMPER- ATURE WATER		DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT-	TEMPER- ATURE WATER		
DATE	TIME	PER SECOND	(US/CM)	(DEG C)		DATE	TIME	PER SECOND	(US/CM)	(DEG C)
OCT 03...	1043	423	327	10.5	JUL 22...	1043	711	223	21.0	
FEB 20...	0933	228	430	0.0	AUG 08...	1037	329	291	18.5	
MAR 28...	1500	800	874	5.0	19...	1135	200	375	19.5	
MAY 16...	1100	8850	157	11.5	21...	1237	210	301	21.0	
JUN 13...	0920	6190	101	12.0	22...	1126	204	377	19.0	
					SEP 19...	1146	206	388	12.5	
					30...	1155	335	354	12.5	

## GREEN RIVER BASIN

**09249750 WILLIAMS FORK RIVER AT MOUTH, NEAR HAMILTON, CO**

LOCATION.--Lat 40°26'14", Long 107°38'50", in SE<sup>1/4</sup>NW<sup>1/4</sup> sec.31, T.6 N., R.91 W., Moffat County, Hydrologic Unit 14050001, on left bank at coal mine service road crossing, 2,300 ft upstream from confluence with Yampa River, 6.1 mi north-northeast of Hamilton, and 8 mi south-southwest of Craig.

DRAINAGE AREA.--419 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--February 1984 to current year. Sediment data available June 1975 to September 1980, and April 1987 to September 1991.

GAGE.--Water stage recorder. Elevation of gage is 6,170 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	107	93	82	52	52	57	186	568	908	325	81	35
2	85	93	87	66	63	70	241	604	893	297	77	33
3	76	57	78	61	67	70	266	771	934	289	81	32
4	84	54	70	58	59	59	238	974	1010	274	77	32
5	106	65	71	59	58	64	220	1140	1050	269	74	32
6	88	78	76	64	52	62	216	1380	1120	285	70	31
7	83	71	81	81	53	71	252	1510	1040	263	67	49
8	87	67	75	58	55	69	313	1560	972	231	67	44
9	84	68	71	76	60	63	468	1760	921	215	64	35
10	78	83	71	60	68	70	613	1610	953	201	62	26
11	78	60	70	58	67	80	702	1500	928	184	60	19
12	79	81	68	81	89	92	584	1720	832	169	57	25
13	95	85	70	85	71	98	531	1880	800	159	54	39
14	89	88	75	77	68	97	437	1830	738	150	51	46
15	77	88	64	77	57	108	382	1940	724	140	51	47
16	74	82	47	75	65	120	409	2100	684	138	50	44
17	72	80	64	54	68	119	434	2580	677	132	49	50
18	72	74	76	59	65	100	407	2290	669	138	49	51
19	69	71	56	80	62	91	416	1950	646	160	48	57
20	68	71	37	57	72	94	359	1580	620	134	49	60
21	62	69	53	71	74	102	348	1270	717	116	47	63
22	74	69	64	69	91	127	325	1200	932	107	48	60
23	71	69	69	55	124	187	307	1280	704	99	43	62
24	64	67	70	69	120	168	415	1150	583	91	44	74
25	70	67	62	61	81	118	808	1020	512	86	40	71
26	73	69	59	58	86	109	740	1050	461	85	38	69
27	72	70	63	76	81	108	720	920	460	83	40	65
28	68	49	65	84	104	116	786	833	453	82	43	63
29	66	73	55	53	96	152	631	932	394	87	44	64
30	69	89	49	67	---	162	565	889	352	108	40	61
31	73	---	50	54	---	160	---	930	---	93	37	---
TOTAL	2413	2200	2048	2055	2128	3163	13319	42721	22687	5190	1702	1439
MEAN	77.8	73.3	66.1	66.3	73.4	102	444	1378	756	167	54.9	48.0
MAX	107	93	87	85	124	187	808	2580	1120	325	81	74
MIN	62	49	37	52	52	57	186	568	352	82	37	19
AC-FT	4790	4360	4060	4080	4220	6270	26420	84740	45000	10290	3380	2850

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1996, BY WATER YEAR (WY)

MEAN	65.5	63.0	57.2	55.3	59.3	94.8	318	1021	681	179	71.2	51.2
MAX	140	117	106	79.5	108	165	680	2228	1720	494	220	113
(WY)	1985	1985	1985	1986	1986	1986	1985	1984	1984	1984	1984	1984
MIN	32.3	34.4	38.3	37.9	40.8	64.1	101	396	147	28.0	25.3	19.7
(WY)	1993	1995	1995	1991	1991	1995	1995	1990	1994	1994	1994	1994

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1984 - 1996
ANNUAL TOTAL	100424	101065	
ANNUAL MEAN	275	276	208
HIGHEST ANNUAL MEAN			357
LOWEST ANNUAL MEAN			105
HIGHEST DAILY MEAN	2150	Jun 6	1985
LOWEST DAILY MEAN	30	Jan 24	1994
ANNUAL SEVEN-DAY MINIMUM	34	Jan 22	3980
INSTANTANEOUS PEAK FLOW		2580	May 16 1984
INSTANTANEOUS PEAK STAGE		7.71	4750
ANNUAL RUNOFF (AC-FT)	199200	200500	May 16 1984
10 PERCENT EXCEEDS	1010	912	669
50 PERCENT EXCEEDS	76	78	74
90 PERCENT EXCEEDS	41	50	37

## GREEN RIVER BASIN

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**09249750 WILLIAMS FORK AT MOUTH, NEAR HAMILTON, CO--Continued**

## **WATER-QUALITY RECORDS**

PERIOD OF RECORD.--June 1975 to September 1980, December 1985 to September 1992, October 1993 to September 1996 (discontinued).

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

	DIS-			COLI-	E. COLI
CHARGE,	SPE-			FORM,	WATER
INST.	CIFIC			FECAL,	WHOLE
CUBIC	CON-	pH	TEMPER-	OXYGEN,	0.7 TOTAL
FEET	DUCT-	( STAND-	ATURE	DIS-	UM-MF UREASE
DATE	TIME	PER	ANCE	ARD	WATER SOLVED (COLS./ (COL /
		SECOND	(US/CM)	UNITS)	(DEG C) (MG/L) 100 ML) 100 ML)

DEC								
01...	1145	71	514	8.3	0.5	12.6	K5	K11
MAR								
04...	1530	63	690	8.3	2.0	10.8	K13	K8
MAY								
14...	1630	1720	232	8.0	10.0	10.5	120	92
AUG								
21...	1030	48	510	8.2	17.5	9.0	29	35

		IRON,	MANGA-						
		TOTAL	LEAD,	TOTAL	NESE,	MANGA-	SELE-		
	COPPER,	DIS-	RECOV-	DIS-	RECOV-	DIS-	DIS-	SILVER,	ZINC,
E	SOLVED	SOLVED	ERABLE	SOLVED	ERABLE	SOLVED	SOLVED	SOLVED	SOLVED
	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
	AS CD)	AS CU)	AS FE)	AS PB)	AS MN)	AS MN)	AS HG)	AS SE)	AS ZN)

DEC										
01...	<1	1	370	<1	20	<10	<0.1	<1	<0.2	<10
MAR										
04...	<1	2	180	<1	40	20	<0.1	<1	<0.2	<10
MAY										
14...	<1	3	1800	1	50	9	<0.1	<1	<0.2	4
AUG										
21...	<1	1	100	<1	10	<1	<0.1	<1	<0.2	6

K-Based on non-ideal colony count.

## MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE , INST . CUBIC FEET				SPE- CIFIC CON- DUCT-				DIS- CHARGE , INST . CUBIC FEET				SPE- CIFIC CON- DUCT-			
		PER SECOND	ANCE (US/CM)	TEMPER- WATER (DEG C)	ATURE	DATE	TIME	PER SECOND	ANCE (US/CM)	TEMPER- WATER (DEG C)	ATURE	DATE	TIME	PER SECOND	ANCE (US/CM)	TEMPER- WATER (DEG C)	
...	0845	79	455	8.5		AUG	08...	1350	70	473	21.5						
...	1335	841	388	8.0		22...	0903	49	512	15.5							
...	1220	854	223	12.5		SEP	19...	1347	57	501	11.0						
...	0950	200	352	17.0			30...	1005	73	520	11.0						

## GREEN RIVER BASIN

**09251000 YAMPA RIVER NEAR MAYBELL, CO**

LOCATION.--Lat 40°30'10", long 108°01'45", in NW<sup>1/4</sup> sec.2, T.6 N., R.95 W., Moffat County, Hydrologic Unit 14050002, on left bank at downstream side of bridge on U.S. Highway 40, 2.0 mi downstream from Lay Creek, and 3.0 mi east of Maybell.

DRAINAGE AREA.--3,410 mi<sup>2</sup>, approximately.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--April 1904 to October 1905, June 1910 to November 1912, April 1916 to current year. Monthly discharge only for some periods, published in WSP 1313. No winter records prior to 1917.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 5,900.23 ft above sea level. See WSP 1733 for history of changes prior to Mar. 9, 1937.

REMARKS.--Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by transbasin diversions, numerous storage reservoirs, and diversions upstream from station for irrigation of about 65,000 acres upstream from, and about 800 acres downstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	639	460	485	e377	e390	e357	2170	4240	6550	3440	611	132
2	671	572	515	e378	e380	e370	2920	4150	6520	3290	546	118
3	526	627	497	e381	e367	e475	3750	4410	6530	3170	513	102
4	495	459	456	e372	e357	e570	3720	5130	6900	3000	493	107
5	513	417	465	e373	e349	e690	3410	6080	7420	2820	497	88
6	603	426	479	e370	e336	e800	3280	7180	7990	2850	492	79
7	547	446	487	e366	e324	e910	3530	8390	8710	2840	385	103
8	503	454	506	e369	e320	e1100	4010	8910	8400	2500	342	113
9	503	445	480	e367	e321	e1120	e5640	9030	8340	2210	328	125
10	490	496	455	e363	e317	2850	e5800	9990	8560	1930	310	119
11	464	579	458	e360	e322	2810	e5700	10300	8610	1770	291	135
12	462	461	449	e356	e316	1480	e8250	10000	8640	1500	262	110
13	465	491	423	e362	e312	1530	6400	10800	8370	1330	256	125
14	534	557	471	e365	e315	1530	e4090	11300	7840	1170	248	126
15	541	675	484	e353	e310	1730	e4020	11900	7550	1070	234	136
16	468	796	388	e356	e313	1790	4130	12400	6790	976	228	159
17	450	680	e400	e357	e315	1610	4640	13100	6300	922	220	198
18	446	628	e405	e355	e310	1190	5240	14300	6340	872	226	211
19	419	589	e401	e362	e316	871	4590	14700	6100	903	226	214
20	415	544	e404	e363	e310	799	4250	13300	6010	987	216	227
21	436	528	e397	e360	e308	838	3470	11400	5980	839	220	229
22	450	527	e395	e367	e312	1020	3190	9390	7610	723	219	238
23	470	523	e390	e371	e315	1610	e3050	8750	8260	634	211	237
24	483	523	e343	e374	e310	1880	e3260	8490	6650	552	178	253
25	433	482	e388	e369	e319	1590	e5480	7890	5520	519	183	288
26	400	475	e386	e374	e327	1250	7860	8220	4950	512	185	284
27	458	500	e385	e372	e333	1090	6790	9300	4560	509	164	323
28	478	491	e380	e380	e339	1020	6510	7890	4470	502	151	392
29	455	393	e376	e383	e347	1150	5670	7350	4130	495	130	317
30	424	424	e374	e388	--	1560	4600	6840	3770	502	145	283
31	420	--	e380	e384	--	1840	--	6690	--	660	138	--
TOTAL	15061	15668	13302	11427	9510	39430	139420	281820	204370	45997	8848	5571
MEAN	486	522	429	369	328	1272	4647	9091	6812	1484	285	186
MAX	671	796	515	388	390	2850	8250	14700	8710	3440	611	392
MIN	400	393	343	353	308	357	2170	4150	3770	495	130	79
AC-FT	29870	31080	26380	22670	18860	78210	276500	559000	405400	91240	17550	11050

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 1996, BY WATER YEAR (WY)

MEAN	345	350	296	273	330	699	2593	6236	5537	1417	383	237
MAX	1001	729	624	610	1071	2063	6496	14000	12810	5819	1052	972
(WY)	1962	1987	1948	1948	1986	1986	1962	1984	1917	1957	1957	1929
MIN	117	184	137	115	160	221	735	1850	548	20.4	26.5	27.8

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1916 - 1996

ANNUAL TOTAL	774080		790424									
ANNUAL MEAN	2121		2160									
HIGHEST ANNUAL MEAN												
LOWEST ANNUAL MEAN												
HIGHEST DAILY MEAN	12900	Jun 18	14700	May 19	24400	May 17	1984					
LOWEST DAILY MEAN	153	Sep 18	79	Sep 6	a2.0	Jul 17	1934					
ANNUAL SEVEN-DAY MINIMUM	185	Sep 14	101	Sep 2	3.0	Jul 30	1934					
INSTANTANEOUS PEAK FLOW			15000	May 19	25100	May 17	1984					
INSTANTANEOUS PEAK STAGE			9.62	May 19	12.42	May 17	1984					
ANNUAL RUNOFF (AC-FT)	1535000		1568000		1130000							
10 PERCENT EXCEEDS	7490		7460		5320							
50 PERCENT EXCEEDS	497		495		400							
90 PERCENT EXCEEDS	215		229		175							

e-Estimated.

a-Also occurred Jul 18-19, 1934.

**09251000 YAMPA RIVER NEAR MAYBELL, CO--Continued**  
**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--November 1950 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1950 to August 1973, July 1975 to current year.

WATER TEMPERATURE: November 1950 to August 1973, July 1975 to current year.

SUSPENDED-SEDIMENT DISCHARGE: December 1950 to May 1958, October 1975 to September 1976, October 1977 to September 1978, October 1981 to September 1982.

INSTRUMENTATION:--Water-quality monitor since July 1975.

REMARKS.--Unpublished maximum and minimum specific conductance data for period of daily record available in district office.

Temperature record rated good. Specific conductance record is good. Periods of missing record are due to sensor fouling or instrument malfunction.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1260 microsiemens Nov. 17, 1985; minimum, 78 microsiemens June 1-2, 1994.

WATER TEMPERATURE: Maximum, 33.0°C Aug. 29, 1976; minimum, 0.0°C on many days during winter months.

SEDIMENT CONCENTRATIONS: Maximum daily, 6,180 mg/l, Aug. 16, 1981; minimum daily, 1 mg/l, several days during Dec. 1975 to Feb. 1976, Jan. 6, 1980.

SEDIMENT LOADS: Maximum daily, 47,100 tons May 9, 1958; minimum daily, 0.04 ton Oct. 2-3, 1982.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 780 microsiemens Mar. 1; minimum recorded, 95 microsiemens June 26, 28, but may have been lower during period of missing data May 16 to June 6.

WATER TEMPERATURE: Maximum recorded, 25.3°C August 13; minimum recorded, 0.0°C, on many days during the winter period.

**WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996**

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUC- TANCE PER SECOND	(STAND- ARD (US/CM)	PH DUCT- UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CACO3)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 03...	1630	497	414	8.2	14.0	8.9	150	35	16	23	0.8	2.3	
NOV 29...	1100	391	477	8.1	0.5	11.4	180	40	20	32	1	2.0	
DEC 06...	1430	334	498	8.3	3.0	11.3	190	41	21	32	1	1.9	
JAN 16...	1100	356	518	8.2	0.0	11.2	210	46	22	33	1	2.3	
FEB 07...	1355	324	530	8.0	0.0	11.0	210	44	24	32	1	2.5	
MAR 14...	1615	1550	667	7.7	1.5	12.3	220	42	29	54	2	3.9	
APR 15...	1230	4730	496	8.2	5.0	11.7	190	40	21	25	0.8	2.7	
MAY 28...	1400	7650	199	7.7	9.5	10.1	81	20	7.6	8.1	0.4	1.1	
JUN 25...	1630	4860	133	7.7	16.0	9.3	49	12	4.6	5.3	0.3	0.80	
JUL 18...	1217	817	292	8.3	22.0	8.5	100	25	10	16	0.7	1.5	
AUG 20...	1110	211	541	8.5	19.5	9.2	180	39	19	40	1	2.7	
SEP 09...	1130	117	610	8.0	18.0	9.2	190	40	22	49	2	2.8	

## GREEN RIVER BASIN

## 09251000 YAMPA RIVER NEAR MAYBELL, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	ALKALINITY LAB (MG/L)	SULFATE AS CACO <sub>3</sub> )	CHLO- DIS- SOLVED (MG/L)	FLUO- RIDE, DIS- SOLVED (MG/L)	SILICA, RESIDUE AT 180 DEG. C (MG/L)	SOLIDS, SUM OF CONSTITUENTS (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	MANGANESE, IRON, DIS- SOLVED (UG/L AS FE)	SELENIUM, DIS- SOLVED (UG/L AS MN)
	AS Caco <sub>3</sub> )	AS SO <sub>4</sub> )	AS CL)	AS F)	SIO <sub>2</sub> )	(MG/L)	(MG/L)	(MG/L)	(UG/L AS FE)	(UG/L AS MN)
OCT 03...	117	79	9.1	0.2	5.6	249	240	0.34	334	<1
NOV 29...	132	100	11	0.3	6.4	--	291	0.40	307	--
DEC 06...	136	110	11	0.2	7.7	--	306	0.42	276	--
JAN 16...	153	100	12	0.3	9.5	--	317	0.43	305	--
FEB 07...	154	110	11	0.2	11	--	327	0.44	286	--
MAR 14...	120	200	14	0.2	7.5	--	423	0.57	1770	--
APR 15...	113	130	6.2	0.2	11	--	304	0.41	3880	--
MAY 28...	59	33	1.8	0.1	9.7	--	117	0.16	2410	--
JUN 25...	43	18	1.4	0.1	7.0	--	75	0.10	984	--
JUL 18...	88	46	6.4	0.1	7.8	--	166	0.23	365	--
AUG 20...	144	110	15	0.3	1.6	--	314	0.43	179	--
SEP 09...	164	120	19	0.3	3.9	--	355	0.48	112	--

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER												
	NOVEMBER				DECEMBER				JANUARY			
1	490	420	451	470	460	461	520	490	498	---	---	---
2	490	410	440	460	450	452	530	490	516	---	---	---
3	420	390	404	450	430	442	500	480	486	---	---	---
4	390	380	385	440	410	427	490	470	479	---	---	---
5	410	380	392	410	390	404	500	480	492	470	460	466
6	420	400	413	430	410	414	490	480	486	470	450	458
7	420	390	404	470	420	439	500	490	496	460	450	454
8	410	390	402	480	450	468	510	490	499	460	450	455
9	420	400	407	480	450	464	520	500	512	---	---	---
10	430	420	422	460	440	445	560	510	534	---	---	---
11	420	410	418	460	430	443	560	550	555	480	460	474
12	420	400	409	460	450	459	580	550	566	490	460	479
13	420	390	402	470	440	452	560	550	559	500	480	489
14	400	380	390	490	450	467	550	540	546	510	480	496
15	390	380	384	480	450	469	540	510	534	510	490	501
16	380	370	372	460	430	442	530	510	522	510	480	497
17	370	360	363	440	430	434	---	---	---	500	460	485
18	380	360	368	450	430	440	---	---	---	500	460	476
19	390	370	379	460	450	450	---	---	---	520	500	508
20	390	370	382	460	440	450	---	---	---	520	500	511
21	400	380	387	450	440	448	---	---	---	550	520	539
22	390	370	380	460	440	449	---	---	---	560	540	548
23	390	370	378	450	440	446	---	---	---	550	520	535
24	420	380	405	450	440	442	---	---	---	540	510	526
25	440	410	423	450	440	443	---	---	---	530	500	516
26	440	430	434	460	440	449	---	---	---	520	490	506
27	450	440	448	450	440	444	---	---	---	500	490	496
28	480	450	465	460	430	445	---	---	---	510	490	496
29	490	460	475	480	450	466	---	---	---	510	490	502
30	470	450	459	490	450	467	---	---	---	510	500	505
31	470	460	461	---	---	---	---	---	---	510	500	505
MONTH	490	360	410	490	390	447	---	---	---	---	---	---

## GREEN RIVER BASIN

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## 09251000 YAMPA RIVER NEAR MAYBELL, CO--Continued

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY												
1	510	500	507	780	720	750	---	---	---	400	380	380
2	520	500	509	750	700	730	701	583	653	400	380	387
3	530	510	520	760	700	732	603	546	566	400	380	388
4	530	520	523	760	690	727	546	517	525	380	340	359
5	530	520	526	700	610	669	519	490	504	340	300	323
6	530	520	527	670	590	635	512	501	506	300	240	285
7	540	510	524	710	670	696	521	474	495	280	240	256
8	550	510	535	770	700	737	494	419	458	260	240	240
9	520	500	510	---	---	---	---	---	---	240	220	237
10	510	490	496	---	---	---	---	---	---	220	200	216
11	510	490	499	---	---	---	---	---	---	---	---	---
12	520	500	514	---	---	---	---	---	---	---	---	---
13	540	520	533	---	---	---	400	380	395	200	160	182
14	550	530	545	---	---	---	440	400	412	180	100	175
15	560	540	550	---	---	---	540	440	483	---	---	---
16	570	550	556	---	---	---	540	540	540	---	---	---
17	570	550	561	---	---	---	580	500	521	---	---	---
18	570	540	554	---	---	---	500	440	452	---	---	---
19	600	550	565	---	---	---	480	440	450	---	---	---
20	680	580	636	---	---	---	500	440	495	---	---	---
21	640	530	570	---	---	---	540	500	502	---	---	---
22	600	510	557	---	---	---	540	500	516	---	---	---
23	580	470	535	---	---	---	560	540	557	---	---	---
24	660	580	611	---	---	---	560	540	550	---	---	---
25	700	660	677	---	---	---	---	---	---	---	---	---
MONTH	770	470	573	---	---	---	---	---	---	---	---	---
JUNE												
1	---	---	---	154	134	153	360	340	357	560	560	560
2	---	---	---	174	154	158	360	360	360	560	560	560
3	---	---	---	174	153	158	360	320	356	580	560	570
4	---	---	---	173	153	165	380	320	357	600	580	581
5	---	---	---	193	173	174	380	360	365	600	580	581
6	---	---	---	193	173	176	380	360	368	600	580	595
7	140	120	132	173	172	173	380	360	375	620	600	612
8	140	119	128	192	172	180	380	360	378	600	580	597
9	139	119	127	210	172	191	400	380	381	620	600	608
10	139	119	123	227	192	211	420	380	400	640	620	625
11	119	119	119	227	210	226	420	400	412	640	620	633
12	119	99	116	244	226	233	420	400	420	640	620	628
13	138	98	117	244	244	244	440	420	423	640	620	639
14	118	98	115	261	243	249	440	420	428	640	600	620
15	138	98	120	261	243	260	440	420	438	680	620	635
16	138	98	125	277	260	268	460	440	446	680	660	679
17	137	117	131	294	277	279	460	460	460	660	620	640
18	137	97	127	294	280	287	460	460	460	620	600	615
19	137	97	124	280	280	280	480	460	469	620	600	606
20	137	97	118	280	260	269	560	480	524	600	580	594
21	137	96	119	280	260	265	520	500	517	600	580	585
22	136	96	123	300	260	275	540	520	535	600	560	580
23	136	116	129	300	280	289	540	500	521	580	560	577
24	136	96	128	300	300	300	520	500	517	580	560	565
25	136	115	125	320	300	310	540	520	522	560	540	545
26	135	95	119	340	300	325	540	520	525	540	520	528
27	135	115	127	340	320	337	540	520	535	520	500	505
28	155	95	129	340	340	340	540	520	539	500	480	491
29	155	114	136	340	340	340	560	540	547	480	460	473
30	154	134	151	360	340	345	560	540	557	480	460	472
31	---	---	---	360	340	354	560	540	557	---	---	---
MONTH	---	---	---	360	134	252	560	320	453	680	460	583

GREEN RIVER BASIN

**09251000 YAMPA RIVER NEAR MAYBELL, CO--Continued**

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## GREEN RIVER BASIN

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## 09251000 YAMPA RIVER NEAR MAYBELL, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	19.7	16.7	18.2	24.7	21.2	22.9	23.7	16.4	19.6
2	---	---	---	20.4	17.3	19.0	23.8	20.5	22.1	22.7	16.3	19.1
3	---	---	---	21.4	18.4	19.9	23.1	20.4	21.8	23.0	15.5	18.9
4	---	---	---	21.9	18.3	20.1	22.7	19.8	21.1	22.5	15.5	18.8
5	---	---	---	22.1	19.5	20.7	21.6	18.0	20.1	20.6	16.4	18.3
6	---	---	---	21.9	19.1	20.6	21.1	18.2	19.7	21.6	15.3	17.9
7	14.3	12.0	13.3	22.3	19.2	20.9	21.5	16.8	19.3	21.2	13.2	17.0
8	14.3	12.3	13.4	22.6	19.7	21.1	22.7	18.0	20.5	20.9	13.9	17.0
9	14.6	12.5	13.7	21.2	19.6	20.3	23.6	19.7	21.6	22.0	14.4	17.6
10	14.7	13.1	14.1	21.9	18.7	20.4	23.8	19.0	21.5	22.6	14.4	18.1
11	14.1	12.6	13.4	22.6	19.2	21.0	24.4	19.5	22.0	19.8	16.4	17.7
12	14.2	12.1	13.3	23.3	19.3	21.4	24.8	19.5	22.0	22.5	16.6	18.7
13	14.6	12.7	13.8	23.6	20.1	21.9	25.3	19.8	22.2	20.2	16.0	17.6
14	15.0	13.1	14.2	24.1	19.7	22.1	24.9	19.9	22.1	19.0	15.4	16.7
15	14.3	12.4	13.0	22.3	20.3	21.3	24.7	19.8	21.7	19.6	14.1	16.4
16	13.7	11.4	12.7	23.5	19.6	21.6	24.7	19.1	21.6	17.6	12.8	14.9
17	14.8	12.7	13.9	23.2	20.0	21.7	24.5	19.2	21.5	15.1	11.9	13.2
18	15.1	13.1	14.2	23.9	20.4	21.8	23.5	20.2	21.3	14.0	10.8	12.1
19	15.6	13.6	14.7	24.4	20.7	22.7	23.9	18.4	20.7	12.9	9.7	10.9
20	15.2	14.0	14.5	24.5	21.1	22.9	22.6	18.3	20.1	14.4	9.8	11.7
21	14.4	13.3	13.8	24.5	20.1	22.5	23.2	18.4	20.3	15.4	10.6	12.7
22	14.0	12.5	13.3	24.6	20.8	23.0	23.3	18.1	20.2	16.4	12.2	13.9
23	15.4	12.5	14.0	24.9	20.8	23.0	23.6	17.6	20.2	17.7	13.0	14.9
24	15.8	13.7	14.9	24.8	20.9	23.1	24.3	18.0	20.7	17.7	13.6	15.4
25	16.4	14.6	15.5	24.0	21.2	22.8	24.6	18.1	20.8	15.6	12.7	14.4
26	16.8	15.5	16.1	24.5	19.9	22.2	22.9	18.6	20.1	12.7	9.4	10.7
27	17.1	15.9	16.4	24.4	20.6	22.7	24.2	18.3	20.6	10.6	7.4	9.3
28	16.8	15.3	16.0	23.9	21.6	22.3	24.6	19.0	21.3	12.8	8.9	10.8
29	17.4	14.4	15.9	23.3	20.6	21.9	24.3	17.4	20.5	14.3	10.2	12.1
30	18.3	14.9	16.7	24.6	20.6	22.8	24.2	17.5	20.5	15.1	10.9	12.9
31	---	---	---	24.9	21.2	23.3	24.0	17.1	20.0	---	---	---
MONTH	---	---	---	24.9	16.7	21.6	25.3	16.8	21.0	23.7	7.4	15.3

## GREEN RIVER BASIN

**09251100 YAMPA RIVER ABOVE LITTLE SNAKE RIVER, NEAR MAYBELL, CO**

LOCATION.--Lat 40°27'39", long 108°25'30", in NW<sup>1/4</sup>NE<sup>1/4</sup> sec.20, T.6 N., R.98 W., Moffat County, Hydrologic Unit 14050002, attached to center pier of Moffat Count Road 25 bridge 1 mi upstream from the mouth of Little Snake River, and 18 mi west of Maybell.

DRAINAGE AREA.--3,837 mi<sup>2</sup>.

PERIOD OF RECORD.--May to September 1996.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 5,640 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges during current period. Records good. Natural flow of stream affected by transbasin diversions, numerous storage reservoirs and diversions for irrigation of about 65,800 acres upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

EXTREMES FOR CURRENT PERIOD.--Maximum daily discharge, 10,500 ft<sup>3</sup>/s, May 21, 1996; minimum daily discharge, 103 ft<sup>3</sup>/s, Sept. 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	6440	3650	669	154
2	---	---	---	---	---	---	---	---	6330	3410	752	160
3	---	---	---	---	---	---	---	---	6350	3250	649	141
4	---	---	---	---	---	---	---	---	6600	3070	581	152
5	---	---	---	---	---	---	---	---	6940	2860	546	128
6	---	---	---	---	---	---	---	---	7420	2740	518	106
7	---	---	---	---	---	---	---	---	8070	2800	509	103
8	---	---	---	---	---	---	---	---	8090	2600	516	108
9	---	---	---	---	---	---	---	---	7860	2290	493	116
10	---	---	---	---	---	---	---	---	7960	2030	451	135
11	---	---	---	---	---	---	---	---	8080	1830	414	157
12	---	---	---	---	---	---	---	---	8060	1670	425	131
13	---	---	---	---	---	---	---	---	7940	1530	423	155
14	---	---	---	---	---	---	---	---	7510	1380	419	137
15	---	---	---	---	---	---	---	---	7210	1250	349	147
16	---	---	---	---	---	---	---	---	6670	1160	271	162
17	---	---	---	---	---	---	---	---	6170	1090	271	163
18	---	---	---	---	---	---	---	---	6190	1010	257	203
19	---	---	---	---	---	---	---	---	5960	962	244	226
20	---	---	---	---	---	---	---	---	5850	982	262	242
21	---	---	---	---	---	---	---	10500	5750	998	249	261
22	---	---	---	---	---	---	---	9360	6550	907	239	281
23	---	---	---	---	---	---	---	8450	7770	777	252	284
24	---	---	---	---	---	---	---	8120	7040	720	261	288
25	---	---	---	---	---	---	---	7730	5860	694	250	297
26	---	---	---	---	---	---	---	7630	5150	659	217	326
27	---	---	---	---	---	---	---	8670	4740	622	209	346
28	---	---	---	---	---	---	---	8110	4560	585	208	368
29	---	---	---	---	---	---	---	7300	4260	776	185	428
30	---	---	---	---	---	---	---	7000	4000	645	175	422
31	---	---	---	---	---	---	---	6620	---	583	155	---
TOTAL	---	---	---	---	---	---	---	---	197380	49530	11419	6327
MEAN	---	---	---	---	---	---	---	---	6579	1598	368	211
MAX	---	---	---	---	---	---	---	---	8090	3650	752	428
MIN	---	---	---	---	---	---	---	---	4000	583	155	103
AC-FT	---	---	---	---	---	---	---	---	391500	98240	22650	12550

## 09253000 LITTLE SNAKE RIVER NEAR SLATER, CO

LOCATION.--Lat 40°59'58", long 107°08'34", in SW<sup>1/4</sup>NW<sup>1/4</sup> sec.15, T.12 N., R.87 W., Routt County, Hydrologic Unit 14050003, on left bank just downstream from highway bridge at Focus Ranch, 0.2 mi downstream from Spring Creek, and 12 mi east of Slater.

DRAINAGE AREA.--285 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1942 to September 1947, October 1950 to current year.

REVISED RECORDS.--WSP 1733: 1960.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 6,831.00 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 2,000 acres upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	e64	e30	e30	e31	e32	e65	e420	1380	248	54	25
2	61	e62	e30	e31	e31	e31	e90	430	1330	223	50	24
3	56	e60	e30	e32	e32	e30	e110	536	1380	190	59	23
4	68	e58	e30	e32	e32	e30	e150	702	1510	187	120	23
5	71	e56	e29	e33	e32	e30	174	946	1670	182	69	23
6	62	e54	e30	e33	e32	e30	196	1240	1700	184	53	31
7	68	e52	e30	e32	e31	e30	231	1300	1540	157	49	33
8	77	e50	e30	e30	e31	e29	300	1360	1470	136	46	29
9	73	e48	e30	e29	e30	e29	432	1650	1450	128	43	26
10	70	e48	e30	e28	e32	e29	515	1580	1420	127	41	25
11	70	e46	e29	e27	e31	e29	539	1610	1320	116	39	24
12	71	e44	e30	e28	e33	e29	452	1870	1180	116	37	29
13	70	e42	e30	e28	e33	e29	385	2030	1090	109	35	39
14	63	e40	e30	e28	e32	e29	330	2280	975	101	34	34
15	62	e40	e30	e28	e31	e29	307	2430	827	95	33	32
16	61	e39	e29	e28	e31	e29	334	2640	749	95	31	30
17	60	e39	e29	e28	e32	e29	362	3030	685	130	31	32
18	58	e39	e30	e27	e34	e29	325	2710	570	103	31	35
19	57	e38	e31	e29	e33	e29	289	2410	535	98	38	35
20	50	e38	e32	e27	e32	e30	268	1960	521	83	37	36
21	53	e36	e32	e27	e32	e30	255	1690	613	74	32	39
22	63	e38	e33	e27	e32	e30	240	1620	643	67	31	39
23	60	e37	e32	e27	e31	e30	268	1670	471	63	30	41
24	49	e36	e31	e26	e32	e32	487	1690	430	61	29	36
25	63	e36	e30	e25	e32	e34	684	1910	450	58	27	41
26	71	e37	e29	e30	e32	e45	605	2000	412	58	26	43
27	71	e36	e28	e30	e30	e43	565	1730	388	56	29	39
28	66	e34	e27	e30	e31	e43	458	1540	351	53	34	40
29	70	e32	e26	e30	e32	e50	e420	1470	309	71	30	38
30	e68	e32	e27	e31	---	e50	e410	1470	274	91	28	36
31	e66	---	e29	e31	---	e55	---	1420	---	64	27	---
TOTAL	2002	1311	923	902	920	1033	10246	51344	27643	3524	1253	980
MEAN	64.6	43.7	29.8	29.1	31.7	33.3	342	1656	921	114	40.4	32.7
MAX	77	64	33	33	34	55	684	3030	1700	248	120	43
MIN	49	32	26	25	30	29	65	420	274	53	26	23
AC-FT	3970	2600	1830	1790	1820	2050	20320	101800	54830	6990	2490	1940

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1996, BY WATER YEAR (WY)

MEAN	38.2	35.3	31.5	31.1	32.2	48.7	261	1081	945	161	38.6	28.4
MAX	91.8	77.8	59.4	74.5	59.5	139	842	2122	2231	519	97.3	79.9
(WY)	1962	1962	1983	1983	1962	1989	1974	1984	1983	1983	1945	1984
MIN	17.6	18.4	14.8	16.3	20.4	23.8	77.6	405	178	33.4	17.0	11.0
(WY)	1953	1959	1977	1945	1945	1977	1973	1977	1987	1977	1954	1944

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1944 - 1996

ANNUAL TOTAL	96010		102081									
ANNUAL MEAN	263		279									
HIGHEST ANNUAL MEAN												
LOWEST ANNUAL MEAN												
HIGHEST DAILY MEAN	2800	Jun 5		3030	May 17							
LOWEST DAILY MEAN	e,a <sup>25</sup>	Jan 1		b <sup>23</sup>	Sep 3							
ANNUAL SEVEN-DAY MINIMUM	26	Jan 1		25	Aug 30							
INSTANTANEOUS PEAK FLOW				3620	May 16							
INSTANTANEOUS PEAK STAGE				8.08	May 16							
ANNUAL RUNOFF (AC-FT)	190400		202500									
10 PERCENT EXCEEDS	778		1260									
50 PERCENT EXCEEDS	50		41									
90 PERCENT EXCEEDS	29		29									
				c <sup>8.78</sup>	May 23 1994							
						165300						
						819						
						40						
						21						

e-Estimated.

a-Also occurred Jan 2.

b-Also occurred Sep 4-5.

c-Maximum gage height, 8.95 ft, Apr 25, 1974.

## GREEN RIVER BASIN

**09255000 SLATER FORK NEAR SLATER, CO**

LOCATION.--Lat 40°58'57", long 107°22'56", in SW<sup>1/4</sup>NE<sup>1/4</sup> sec.21, T.12 N., R.89 W., Moffat County, Hydrologic Unit 14050003, on right bank 15 ft downstream from highway bridge, 1.0 mi upstream from mouth, and 1.5 mi south of Slater.

DRAINAGE AREA.--161 mi<sup>2</sup>.

PERIOD OF RECORD.--May to October, December 1910, March to October 1911, and April to May 1912 (published as Slater Creek), July 1931 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 618: 1910-11. WSP 764: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,600 ft above sea level, from river-profile map.

May 28, 1910 to May 25, 1912, nonrecording gage at site 1.5 mi upstream at different datum. July 9, 1931 to May 6, 1932, nonrecording gage at site 0.2 mi downstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 500 acres upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	e24	e22	19	e16	26	58	164	360	43	14	3.9
2	30	25	e22	20	e16	25	86	183	320	38	11	3.8
3	25	19	25	e20	e18	22	88	237	329	34	12	3.5
4	30	e23	24	e20	e19	26	75	331	352	33	22	3.5
5	34	e24	23	e20	e18	24	68	448	367	32	18	4.0
6	27	26	e22	e20	e17	23	77	603	366	31	12	7.6
7	28	22	24	e20	e17	22	97	665	314	29	10	8.5
8	30	22	21	e20	e17	23	131	617	293	25	8.8	8.7
9	29	26	e23	e19	e17	25	183	796	291	22	8.2	7.0
10	26	24	26	e19	e17	29	229	724	288	22	7.9	6.2
11	25	e23	24	e19	e16	34	261	695	267	19	7.2	5.8
12	25	e24	24	e19	e16	38	191	823	247	16	6.9	6.6
13	25	e24	27	e19	e17	35	170	853	238	15	6.4	8.2
14	22	e24	21	e19	e17	33	130	898	219	14	6.3	8.8
15	22	e25	18	e19	e17	47	133	915	183	13	6.4	9.8
16	20	e24	e18	e19	e17	45	156	943	171	13	5.6	8.5
17	20	e24	e17	e19	e18	32	161	1320	172	31	5.6	8.5
18	19	e23	e15	e18	e18	31	134	959	151	25	6.3	9.4
19	19	e23	17	e19	e18	31	116	774	130	18	8.7	9.9
20	17	e23	17	e20	e20	28	101	577	119	15	9.2	10
21	19	25	18	e20	e20	33	100	471	162	12	7.8	9.4
22	22	27	19	e20	e18	46	92	464	197	11	7.0	7.7
23	21	25	16	e20	e17	57	99	497	125	11	6.5	3.3
24	18	24	16	e19	e17	47	207	481	99	11	5.6	6.0
25	23	24	16	e20	e17	37	348	606	83	11	4.5	10
26	26	24	16	e20	e17	36	275	584	68	13	4.6	19
27	24	22	16	e20	20	34	278	443	71	9.5	5.0	18
28	23	24	16	e20	19	33	224	408	69	9.3	5.8	17
29	24	e22	16	e18	21	37	173	407	59	13	6.0	16
30	27	e22	17	e18	---	35	162	414	51	21	5.7	15
31	e25	---	19	e17	---	39	---	384	---	19	4.8	---
TOTAL	764	711	615	599	512	1033	4603	18684	6161	628.8	255.8	263.6
MEAN	24.6	23.7	19.8	19.3	17.7	33.3	153	603	205	20.3	8.25	8.79
MAX	39	27	27	20	21	57	348	1320	367	43	22	19
MIN	17	19	15	17	16	22	58	164	51	9.3	4.5	3.3
AC-FT	1520	1410	1220	1190	1020	2050	9130	37060	12220	1250	507	523

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1996, BY WATER YEAR (WY)

MEAN	19.8	19.0	17.3	16.9	18.3	27.7	117	375	252	38.7	9.83	11.3
MAX	62.4	49.2	44.1	36.9	46.5	79.2	323	801	660	189	38.4	55.0
(WY)	1986	1985	1985	1985	1986	1986	1985	1984	1995	1983	1945	1984
MIN	7.29	7.73	7.30	4.42	9.82	12.6	25.2	45.7	23.6	1.27	1.39	3.20
(WY)	1934	1934	1932	1992	1981	1965	1933	1934	1977	1977	1994	1960

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1932 - 1996
ANNUAL TOTAL	46161.4	34830.2	
ANNUAL MEAN	126	95.2	77.1
HIGHEST ANNUAL MEAN			157
LOWEST ANNUAL MEAN			20.5
HIGHEST DAILY MEAN	1090	Jun 6	1500
LOWEST DAILY MEAN	6.2	Sep 6	a.00
ANNUAL SEVEN-DAY MINIMUM	6.9	Sep 1	.00
INSTANTANEOUS PEAK FLOW		1510 May 17	b.2250
INSTANTANEOUS PEAK STAGE		9.61 May 17	c.11.78
ANNUAL RUNOFF (AC-FT)	91560	69090	55860
10 PERCENT EXCEEDS	524	299	250
50 PERCENT EXCEEDS	24	22	19
90 PERCENT EXCEEDS	13	8.5	7.0

e-Estimated.

a-Also occurred several days during years 1936, 1954, and 1977.

b-From rating curve extended above 1000 ft<sup>3</sup>/s.

c-From floodmark.

## 09257000 LITTLE SNAKE RIVER NEAR DIXON, WY

LOCATION.--Lat 41°01'42", long 107°32'55", in SE<sup>1/4</sup> NW<sup>1/4</sup> sec.8, T.12 N., R.90 W., Carbon County, Hydrologic Unit 14050003, on left bank 200 ft upstream from highway bridge, 1,000 ft upstream from Willow Creek, and 0.8 mi west of Dixon.

DRAINAGE AREA.--988 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1910 to September 1923, March 1938 to current year. No winter records since 1971. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1243: 1920(M). WDR WY-85-1: 1984(M).

GAGE.--Water-stage recorder. Datum of gage is 6,331.22 ft above sea level. May 27, 1910 to Sept. 30, 1923, nonrecording gage on highway bridge 200 ft downstream at datum 2.98 ft higher; Mar. 15, 1938 to Sept. 30, 1957, water-stage recorder at site 225 ft downstream at datum 2.98 ft higher; Oct. 1, 1957 to June 6, 1968, at site 850 ft downstream at present datum; and June 7 to Sept. 30, 1968, at site 225 ft downstream at present datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Diversions for irrigation of about 9,500 acres upstream from station. One diversion upstream from station for irrigation of about 3,000 acres downstream. Transbasin diversions upstream from station. National Weather Service satellite telemeter at station.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by the Geological Survey.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,200 ft<sup>3</sup>/s and maximum (\*) during period of operation:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)					
May 18	Unknown	* 4,300	9.62 <sup>a</sup>	May 26	0730	3,890	9.25					
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996 DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	e410	e870	2310	357	.57	.18
2	---	---	---	---	---	---	e480	e830	2170	269	.27	.19
3	---	---	---	---	---	---	e900	e1050	2190	216	.26	.18
4	---	---	---	---	---	---	e800	e1250	2310	190	4.2	.18
5	---	---	---	---	---	---	e550	e1500	2510	171	21	.23
6	---	---	---	---	---	---	e580	e2000	2650	171	1.2	.35
7	---	---	---	---	---	---	e600	e2500	2450	130	.51	.32
8	---	---	---	---	---	---	e830	e2400	2310	103	.44	.32
9	---	---	---	---	---	---	e1200	e2600	2270	81	.38	.29
10	---	---	---	---	---	---	e1300	e2500	2260	75	.39	.24
11	---	---	---	---	---	---	1610	e2400	2140	58	.40	.22
12	---	---	---	---	---	---	1310	e2500	1980	28	.42	.26
13	---	---	---	---	---	---	1220	e2600	1830	21	.33	.32
14	---	---	---	---	---	---	950	e2800	1730	16	.26	.33
15	---	---	---	---	---	---	865	e3000	1490	10	.36	.29
16	---	---	---	---	---	---	975	e3300	1350	9.6	.48	.24
17	---	---	---	---	---	---	1110	e3600	1270	20	.66	.27
18	---	---	---	---	---	---	922	e3900	1100	31	.71	.26
19	---	---	---	---	---	---	892	e3700	983	18	.68	.26
20	---	---	---	---	---	---	716	e3200	918	7.6	.39	.24
21	---	---	---	---	---	---	739	e2700	956	1.3	.21	.24
22	---	---	---	---	---	---	644	e2500	1270	.51	.19	.23
23	---	---	---	---	---	---	675	e2600	932	.29	.17	.22
24	---	---	---	---	---	---	896	2570	752	.24	.15	.22
25	---	---	---	---	---	---	1790	2880	698	.23	.15	.22
26	---	---	---	---	---	---	e1500	3480	603	.21	.13	.22
27	---	---	---	---	---	---	e1200	2880	575	.21	.14	.22
28	---	---	---	---	---	---	e1050	2590	535	.20	.14	.23
29	---	---	---	---	---	---	e880	2510	493	.25	.13	.24
30	---	---	---	---	---	---	e870	2500	425	2.4	.11	.24
31	---	---	---	---	---	---	--	2370	--	9.0	.12	--
TOTAL	---	---	---	---	---	---	28464	78080	45460	1997.04	35.55	7.45
MEAN	---	---	---	---	---	---	949	2519	1515	64.4	1.15	.25
MAX	---	---	---	---	---	---	1790	3900	2650	357	21	.35
MIN	---	---	---	---	---	---	410	830	425	.20	.11	.18
AC-FT	---	---	---	---	---	---	56460	154900	90170	3960	71	15
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1971, BY WATER YEAR (WY)												
MEAN	79.5	94.3	88.8	85.4	101	215	879	2559	1827	175	27.6	27.5
MAX	282	245	160	130	433	744	1991	5698	4035	1160	198	105
(WY)	1917	1921	1921	1917	1962	1919	1962	1920	1917	1917	1916	1965
MIN	6.18	36.3	45.0	37.1	47.8	82.8	298	1065	217	5.17	1.58	.78
(WY)	1961	1956	1923	1963	1967	1965	1961	1954	1954	1966	1966	1962

## SUMMARY STATISTICS

## FOR 1996 WATER YEAR\*

## WATER YEARS 1911 - 1971

ANNUAL MEAN	514
HIGHEST ANNUAL MEAN	930
LOWEST ANNUAL MEAN	212
HIGHEST DAILY MEAN	1920
LOWEST DAILY MEAN	1961

e3900	May 18	8960	May 23	1920
.11	Aug 30	.00	Several days,	

1977, 1981, 1992<sup>#</sup>

ANNUAL SEVEN-DAY MINIMUM	.35	Sep 3	1969
INSTANTANEOUS PEAK FLOW	b13000		May 16 1984
INSTANTANEOUS PEAK STAGE	a <sub>9.62</sub>	May 18	a <sub>13.56</sub>
ANNUAL RUNOFF (AC-FT)	372600		May 16 1984

10 PERCENT EXCEEDS	1850
50 PERCENT EXCEEDS	100
90 PERCENT EXCEEDS	8.0

e-Estimated.

\*-During period of operation.

#-For period of record through 1996.

a-From floodmarks.

b-From rating curve extended above 10,000 ft<sup>3</sup>/s, some increase in peak caused by dam failure.

## GREEN RIVER BASIN

09259050 LITTLE SNAKE RIVER BELOW BAGGS, WY

## WATER QUALITY RECORDS

LOCATION.--Lat 41°01'43", long 107°41'14", in SE<sup>1/4</sup>NW<sup>1/4</sup>NW<sup>1/4</sup> sec.7, T.12 N., R.92 W., Carbon County, Hydrologic Unit 14050003, 0.8 mi downstream from Ledford Slough, 1.5 mi southwest of Baggs, and 3.5 mi downstream from bridge on State Highway 789 in Baggs.

PERIOD OF RECORD.--Water years 1981 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-	PH			BARO-	OXYGEN,	DIS-	
		CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT- ANCE PER SECOND	WATER WHOLE FIELD	TEMPER- (STAND- ARD)	TEMPER- ATURE WATER (DEG C)	TEMPER- ATURE AIR (DEG C)	PRES- SURE (MM HG)	OXYGEN, DIS- CENT OF SOLVED (MG/L)
DEC 04...	1545	179	386	8.1	2.5	4.5	606	11.0	102
MAY 14...	1300	4270	102	7.5	7.5	23.0	606	9.1	96
23...	1015	2550	116	7.3	9.5	14.0	604	8.2	91
JUL 25...	1630	5.4	382	9.2	24.0	28.0	610	17.2	258
DATE		HARD- NESS	CALCIUM TOTAL (MG/L)	MAGNE- SIUM, DIS- SOLVED	SODIUM, DIS- SOLVED	SODIUM AD- SORP- TION	POTAS- SIUM, DIS- SOLVED	ALKA- LINITY	SULFATE
		AS CACO <sub>3</sub> (00900)	(MG/L AS CA) (00915)	(MG/L AS MG) (00925)	(MG/L AS NA) (00930)	(00931)	(00935)	(MG/L AS K) (90410)	(MG/L AS CACO <sub>3</sub> ) (00945)
DEC 04...	160	44	11	18	0.6	2.0	144	48	
MAY 14...	41	12	2.6	3.3	0.2	1.1	45	6.2	
23...	42	12	2.9	3.9	0.3	1.0	46	8.8	
JUL 25...	120	28	13	32	1	2.1	149	43	
DATE		CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO <sub>2</sub> ) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	SEDI- MENT, DIS- SOLVED (TONS PER DAY) (80154)	SEDI- MENT, DIS- SOLVED (T/DAY) (80155)
		5.0	0.3	19	234	0.32	113	27	13
DEC 04...	0.8	0.1	12	65	0.09	750	790	9110	
MAY 14...	0.9	<0.1	13	70	0.09	483	282	1940	
23...	6.6	0.3	2.3	217	0.29	3.16	11	0.16	

## GREEN RIVER BASIN

369

## 09260000 LITTLE SNAKE RIVER NEAR LILY, CO

LOCATION.--Lat 40°32'50", long 108°25'25", in NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec.20, T.7 N., R.98 W., Moffat County, Hydrologic Unit 14050003, on left bank 170 ft downstream from highway bridge, 6.0 mi north of Lily, and 10 mi upstream from mouth.

DRAINAGE AREA.--3,730 mi<sup>2</sup>, approximately.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June to August 1904 (published as "near Maybell"), October 1921 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1713: 1959.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 5,685 ft above sea level, from river-profile map. June 9 to Aug. 14, 1904, nonrecording gage, and May 5, 1922 to Nov. 30, 1935, water-stage recorder, at site 300 ft upstream at different datums.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 21,000 acres upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	179	283	e190	e140	e90	e95	453	957	2590	649	74	6.8
2	211	297	e190	e138	e85	e95	429	948	2530	559	79	6.2
3	339	435	e180	e135	e85	e90	492	917	2390	487	52	5.7
4	318	351	e175	e130	e90	e85	913	1010	2290	409	51	5.1
5	282	293	e180	e125	e95	e80	813	1270	2330	364	39	5.4
6	262	223	e196	e125	e80	e80	562	1730	2530	307	32	12
7	276	199	e178	e130	e77	e80	587	2360	2810	294	26	8.2
8	318	225	165	e125	e75	e85	599	2870	2770	277	24	9.2
9	311	252	172	e120	e70	e90	746	2590	2580	259	33	7.1
10	286	262	162	e120	e75	e90	882	3080	2590	237	35	6.0
11	284	238	170	e110	e75	e90	1370	3050	2590	200	25	6.5
12	285	258	157	e105	e80	e95	1540	2770	2480	175	25	7.7
13	265	292	176	e110	e90	e100	1380	3040	2240	168	23	8.7
14	265	246	163	e110	e90	e110	1190	3320	2090	141	15	9.5
15	252	273	140	e115	e90	e100	1060	3680	1960	106	16	8.4
16	241	337	170	e120	e95	e105	946	3980	1750	96	16	7.4
17	229	419	151	e100	e100	e110	931	4120	1600	88	14	12
18	224	415	89	e90	e105	e115	1030	4630	1410	68	14	13
19	221	360	90	e110	e110	e130	1110	5460	1310	62	12	12
20	213	321	118	e100	e115	e150	911	4630	1130	57	11	12
21	221	174	175	e100	e120	e200	836	3720	1090	81	10	11
22	225	236	195	e105	e115	295	714	2980	1320	76	7.7	11
23	237	e200	120	e90	e105	321	714	2640	1340	53	10	e11
24	224	e175	145	e95	e110	332	630	2610	1360	54	12	e11
25	231	e170	152	e100	e110	441	650	2690	1070	41	11	e11
26	247	e170	141	e90	e110	439	1310	2870	894	38	17	11
27	237	e180	151	e100	e95	383	1760	3890	814	42	29	12
28	286	e170	160	e110	e90	349	1480	3230	758	45	17	11
29	438	e170	e155	e90	e85	332	1390	2910	717	62	12	11
30	347	e180	e150	e100	---	343	1130	2900	699	90	8.9	12
31	296	---	e140	e105	---	397	---	2700	---	72	8.1	---
TOTAL	8250	7804	4896	3443	2712	5807	28558	89552	54032	5657	758.7	280.9
MEAN	266	260	158	111	93.5	187	952	2889	1801	182	24.5	9.36
MAX	438	435	196	140	120	441	1760	5460	2810	649	79	13
MIN	179	170	89	90	70	80	429	917	699	38	7.7	5.1
AC-FT	16360	15480	9710	6830	5380	11520	56640	177600	107200	11220	1500	557

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1996, BY WATER YEAR (WY)

MEAN	113	119	97.9	88.2	121	371	1077	2566	1886	303	69.0	53.2
MAX	385	363	244	205	595	1260	3259	5967	4601	1395	534	314
(WY)	1926	1928	1928	1932	1986	1962	1952	1984	1983	1995	1941	1965
MIN	.000	.000	25.0	16.0	18.0	80.5	320	477	36.7	.29	.000	.000
(WY)	1935	1935	1931	1933	1964	1961	1934	1934	1934	1934	1924	1934

## SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1922 - 1996

ANNUAL TOTAL	322518		211750.6									
ANNUAL MEAN	884		579									
HIGHEST ANNUAL MEAN												
LOWEST ANNUAL MEAN												
HIGHEST DAILY MEAN	5830	Jun 8	5460	May 19	13400	May 18	1984					
LOWEST DAILY MEAN	a28	Sep 5	5.1	Sep 4	b.00	Jul 30	1924					
ANNUAL SEVEN-DAY MINIMUM	34	Sep 1	6.6	Aug 30	.00	Jul 30	1924					
INSTANTANEOUS PEAK FLOW			5530	May 19	16700	May 18	1984					
INSTANTANEOUS PEAK STAGE			6.10	May 19	c9.85	May 18	1984					
ANNUAL RUNOFF (AC-FT)	639700		420000		415200							
10 PERCENT EXCEEDS	3310		2300		1950							
50 PERCENT EXCEEDS	246		170		123							
90 PERCENT EXCEEDS	83		12		12							

e-Estimated.

a-Also occurred Sep 6.

b-Also occurred, Jul 31 to Sep 11, Sep 13-20, 1924, Aug 25-29, Aug 31 to Sep 13, and Sep 28-29, 1994.

c-Maximum gage height, 11.10 ft, Feb 13, 1962, backwater from ice.

**09260000 LITTLE SNAKE RIVER NEAR LILY, CO--Continued****WATER-QUALITY RECORDS**

PERIOD OF RECORD.--September 1969 to September 1986, October 1994 to September 1996.

**PERIOD OF DAILY RECORD...**

SPECIFIC CONDUCTANCE: July 1975 to September 1985.

WATER TEMPERATURES: July 1975 to September 1985.

INSTRUMENTATION:--Water-quality monitor July 1975 to September 1985.

REMARKS.--Unpublished maximum and minimum specific conductance data for period of daily record is available in district office.

**EXTREMES FOR PERIOD OF DAILY RECORD.--**

SPECIFIC CONDUCTANCE: Maximum, 2,020 microsiemens Oct 11, 1977; minimum, 110 microsiemens June 1, 1985.

WATER TEMPERATURE: Maximum, 32.0°C Aug. 6, 1981; minimum, freezing point on many days during winter months each year.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SEDI- MENT, DIS- CHARGE, SUS- PENDED PER SECOND	SED- IMENT, DIS- CHARGE, SUS- PENDED (MG/L)	SED. SIEVE DIAM. % FINER (T/DAY)	SED. SUSP. DIAM. THAN .062 MM
OCT 06...	1600	239		13800	8880	99
NOV 25...	1017	82		375	83	80
JAN 30...	1515	116		536	168	20
FEB 28...	1200	495		3460	4620	63
MAR 31...	1230	228		844	520	15
APR 13...	1110	468		1300	1640	58
MAY 01...	1130	513		475	658	100
	31...	1130	4900	2160	28500	74
JUN 08...	1500	5840		763	12000	93
	12...	1101	3340	1950	17600	31
JUL 17...	1206	1370		575	2130	100
AUG 31...	1315	38		16	1.6	--
SEP 20...	1700	49		1490	195	70

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SEDI- MENT, DIS- CHARGE, SUS- PENDED PER SECOND	SED- IMENT, DIS- CHARGE, SUS- PENDED (MG/L)	SED. SIEVE DIAM. % FINER (T/DAY)	SED. SUSP. DIAM. THAN .062 MM
OCT 30...	0925	351		6600	6250	99
DEC 06...	1315	196		285	151	74
	07...	1215	178	212	102	88
FEB 07...	1200	77		96	20	--
MAR 28...	1014	369		645	643	90
APR 01...	0909	477		578	744	95
	10...	0947	909	2620	6430	84
	15...	1045	1110	610	1830	13
MAY 10...	1007	3440		261	2420	98
	21...	1355	3960	567	6060	92
JUN 05...	1100	2340		248	1570	90
	10...	1045	2610	793	5590	29
	25...	1010	1090	254	748	99
JUL 24...	1134	61		22	3.6	--
AUG 02...	1050	86		704	164	96

**09260000 LITTLE SNAKE RIVER NEAR LILY, CO--Continued**

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-	CHARGE,	SPE-	INST.	DIS-	CHARGE,	SPE-	INST.	DIS-	CHARGE,	SPE-	INST.
		CUBIC	CON-	TEMPER-		CUBIC	CON-	TEMPER-		FERT	DUCT-	ATURE	
		SECOND	(US/CM)	(DEG C)					SECOND	(US/CM)	(DEG C)		
OCT 30...	0925	351	710	6.5		MAY 10...	1007	3440	173	12.0			
DEC 06...	1315	196	499	4.5		21...	1355	3960	141	12.5			
07...	1215	178	498	4.0		JUN 05...	1100	2340	149	12.0			
FEB 07...	1200	77	519	0.0		10...	1045	2610	136	19.0			
MAR 28...	1014	369	515	8.5		25...	1010	1090	221	20.5			
APR 01...	0909	477	548	8.0		JUL 24...	1134	61	721	26.5			
10...	0947	909	386	12.0		AUG 02...	1050	86	871	21.0			
15...	1045	1110	330	6.5		SEP 11...	1005	6.2	1160	14.5			

## GREEN RIVER BASIN

**09303000 NORTH FORK WHITE RIVER AT BUFORD, CO**

LOCATION.--Lat 39°59'15", long 107°36'50", in NW<sup>1/4</sup>NW<sup>1/4</sup> sec.9, T.1 S., R.91 W., Rio Blanco County, Hydrologic Unit 14050005, on right bank 600 ft east of Buford and 1.2 mi upstream from South Fork White River.

DRAINAGE AREA.--259 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--May 1910 to December 1915, July 1919 to December 1920, October 1951 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as North Fork White River near Buford prior to 1951 and as White River at Buford 1951-67. Records for July 1903 to December 1906 at site 6.5 mi upstream not equivalent because of inflow between sites.

REVISED RECORDS.--WSP 1343: 1912. WDR CO-89-2: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 7,010 ft above sea level, from topographic map.

May 24, 1910 to May 27, 1914, nonrecording gage at site 1.5 mi upstream at different datum. May 28, 1914 to Dec. 7, 1915, and July 1, 1919 to Oct. 9, 1920, nonrecording gage at present site at different datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Diversions upstream from station for irrigation of about 900 acres, and 300 acres downstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	255	e212	190	e164	e160	161	199	459	828	582	274	198
2	246	e210	188	e165	e170	158	223	497	844	558	273	197
3	238	e208	186	e166	e160	158	222	596	904	539	267	196
4	266	e206	187	e168	e170	156	220	710	960	518	260	194
5	252	e204	192	e172	e170	157	221	828	1030	515	250	196
6	243	e202	197	e175	e160	155	234	964	1080	510	242	214
7	248	208	191	e174	e165	155	264	999	1080	481	237	210
8	247	201	189	e176	e160	154	327	1050	1100	464	225	199
9	240	206	185	e175	e165	153	425	1060	1080	451	221	198
10	242	212	184	e173	e170	155	479	1010	1130	434	223	196
11	242	204	183	e170	e165	156	474	1020	1060	416	221	195
12	e243	201	e183	e173	e160	158	389	1160	1010	395	220	205
13	e240	203	188	e175	e165	156	358	1200	969	388	220	212
14	e240	206	185	e175	e165	156	317	1180	923	379	221	220
15	e240	203	175	e178	162	156	298	1260	923	382	221	215
16	e243	201	199	e177	161	158	309	1380	914	383	221	212
17	e246	198	178	e170	161	161	321	1690	902	375	219	226
18	e245	196	167	e170	165	157	301	1500	914	384	223	226
19	e245	194	e165	e165	162	156	284	1370	910	364	230	224
20	e246	192	e166	e168	163	156	268	1210	903	347	223	229
21	e245	190	e165	e170	166	159	260	1060	1040	336	210	223
22	e243	192	e162	e165	171	170	249	1030	1090	334	212	216
23	e240	190	e165	e165	164	176	262	1060	963	333	212	221
24	e235	188	e162	e170	164	169	353	937	856	323	208	226
25	e232	188	e167	e173	161	164	505	929	777	318	209	222
26	e228	192	e167	e163	160	162	514	894	725	311	212	218
27	e226	193	e168	e170	160	161	564	812	706	302	217	216
28	e224	188	e169	e160	160	163	558	846	681	295	215	218
29	e222	202	e169	e170	160	169	450	813	641	307	210	215
30	e220	193	e169	e170	---	172	430	818	607	302	204	208
31	e216	---	e165	e170	---	180	---	819	---	281	201	---
TOTAL	7438	5983	5506	5275	4745	4977	10278	31161	27550	12307	7001	6345
MEAN	240	199	178	170	164	161	343	1005	918	397	226	211
MAX	266	212	199	178	171	180	564	1690	1130	582	274	229
MIN	216	188	162	160	153	199	459	607	281	201	194	
AC-FT	14750	11870	10920	10460	9410	9870	20390	61810	54650	24410	13890	12590

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 1996, BY WATER YEAR (WY)

MEAN	198	183	168	161	156	159	276	771	848	398	245	206
MAX	323	273	257	234	240	237	584	1749	1618	1131	447	357
(WY)	1985	1985	1985	1985	1985	1985	1985	1985	1984	1957	1984	1984
MIN	122	112	122	118	116	125	168	282	217	116	127	114

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1910 - 1996
ANNUAL TOTAL	132228	128566	
ANNUAL MEAN	362	351	
HIGHEST ANNUAL MEAN			315
LOWEST ANNUAL MEAN			523
HIGHEST DAILY MEAN	1510	Jun 16	1984
LOWEST DAILY MEAN	126	Jan 1	1977
ANNUAL SEVEN-DAY MINIMUM	139	Mar 3	157
INSTANTANEOUS PEAK FLOW		1850	1977
INSTANTANEOUS PEAK STAGE		6.16	1977
ANNUAL RUNOFF (AC-FT)	262300	255000	228000
10 PERCENT EXCEEDS	1010	914	722
50 PERCENT EXCEEDS	222	216	195
90 PERCENT EXCEEDS	143	162	140

e-Estimated.

a-Maximum gage height, 7.22 ft, Jan 9, 1961, backwater from ice.

## GREEN RIVER BASIN

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**09303000 NORTH FORK WHITE RIVER AT BUFORD, CO--Continued**  
**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--October 1982 to September 1992. October 1994 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC COND- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	COLI- FORM, FECAL, UM-MF (COLS. / 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JAN 11...	1400	170	331	7.8	0.0	11.4	1.1	K3	--	--	--
MAR 25...	1400	182	347	8.2	2.0	11.9	0.9	42	170	54	9.4
APR 19...	0900	277	309	8.3	1.0	11.3	0.9	K5	--	--	--
JUN 20...	0900	888	178	8.4	8.5	9.3	0.9	73	--	--	--
SEP 04...	1530	196	332	8.0	14.0	9.8	1.2	K25	160	48	8.8
<hr/>											
DATE		SODIUM, DIS- SOLVED (MG/L AS NA)	AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY SOLVED (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, (TONS DIS- SOLVED PER AC-FT)	SOLIDS,
MAR 25...		2.9	0.1	0.80	98	80	0.50	0.1	18	225	0.31
SEP 04...		2.9	0.1	1.2	94	71	0.70	<0.1	18	207	0.28
<hr/>											
DATE		SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)
JAN 11...		--	<0.01	0.13	<0.015	0.5	<0.2	0.02	0.02	0.02	0.02
MAR 25...		111	<0.01	0.10	0.02	<0.2	<0.2	0.02	0.02	0.01	0.02
APR 19...		--	<0.01	0.18	<0.015	<0.2	<0.2	0.02	0.02	0.02	0.01
JUN 20...		--	<0.01	0.06	0.04	<0.2	<0.2	<0.01	<0.01	<0.01	<0.01
SEP 04...		110	<0.01	0.08	0.02	0.3	0.2	<0.01	<0.01	<0.01	<0.01
<hr/>											
DATE		ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	CADMIUM BORON, DIS- SOLVED (UG/L AS B)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CD)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	
MAR 25...		--	<10	<1	<100	<10	--	<1	<1	<1	1
SEP 04...		20	8	<1	200	<10	10	<1	<1	<1	6
<hr/>											
DATE		IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LITHIUM TOTAL (UG/L AS LI)	MANGA- NESE, TOTAL (UG/L AS MN)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	STRON- TIUM, TOTAL RECOV- ERABLE (UG/L AS SR)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	
MAR 25...		130	<1	<10	10	1	<1	<1	520	<10	
SEP 04...		40	<1	<10	<10	<1	<1	<1	<100	<10	

K-Based on non-ideal colony count.

## GREEN RIVER BASIN

**09303000 NORTH FORK WHITE RIVER AT BUFORD, CO--Continued**

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
DEC 05...	1135	184	315	2.5	JUN 07...	1145	983	168	8.0
FEB 07...	1045	253	325	0.0	JUL 03...	1020	574	225	11.0
14...	1105	208	333	0.0	AUG 22...	0840	203	329	9.0
APR 09...	0925	392	284	2.0	SEP 30...	1210	214	319	7.5
MAY 13...	1300	1030	188	7.5					

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, SEDIM- ENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
JAN 11...	1400	170	27	12
MAR 25...	1400	182	12	5.9
APR 19...	0900	277	36	27
JUN 20...	0900	888	19	45
SEP 04...	1530	196	20	11

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, SEDIM- ENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
MAR 21...	1200	151	12	4.9
APR 20...	0900	171	10	4.6
AUG 17...	0930	316	13	11

**09304000 SOUTH FORK WHITE RIVER AT BUFORD, CO**

LOCATION.--Lat 39°58'28", long 107°37'30", in NW<sup>1/4</sup>NE<sup>1/4</sup> sec.17, T.1 S., R.91 W., Rio Blanco County, Hydrologic Unit 14050005, on right bank 30 ft downstream from highway bridge, 0.8 mi upstream from mouth, and 1.0 mi south of Buford.

DRAINAGE AREA.--177 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--July 1919 to December 1920 (monthly discharge only, published in WSP 1313), October 1951 to current year.

REVISED RECORDS.--WDR CO-79-3: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,970 ft above sea level, from topographic map. Prior to Nov. 30, 1920, nonrecording gage at site 200 ft downstream, at different datum. Oct. 1951 to Apr. 1981, at site 50 ft downstream, at different datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Diversions upstream for irrigation of about 1,100 acres.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	153	132	116	e66	e90	119	136	285	746	398	169	109
2	145	115	117	e68	e90	122	145	294	834	376	163	108
3	139	105	109	e68	e96	120	148	312	953	363	159	108
4	151	117	118	e70	e105	115	147	345	1110	346	163	107
5	144	117	121	e74	e115	115	149	394	1230	334	161	108
6	135	126	118	e78	e120	112	152	460	1370	331	155	124
7	142	120	105	e80	e127	109	158	503	1340	307	154	125
8	141	117	82	e80	e125	109	171	530	1320	286	155	114
9	136	121	80	e84	e123	113	212	590	1250	277	156	111
10	135	125	82	e84	e120	115	246	603	1220	267	151	108
11	134	110	75	e84	e125	115	258	607	1080	252	150	106
12	135	125	82	e86	e123	117	239	680	1020	240	148	113
13	141	122	92	e86	e123	117	234	771	1060	230	146	118
14	133	123	58	e85	e120	116	203	888	984	214	143	122
15	131	120	50	e80	e125	116	188	992	915	207	140	123
16	129	119	78	e80	e120	117	194	1110	868	230	137	120
17	127	119	63	e82	e118	119	196	1310	857	230	135	129
18	125	115	48	67	e115	117	193	1320	897	222	134	135
19	123	116	78	e72	113	109	193	1320	863	216	144	140
20	118	115	e70	e74	115	115	181	1220	828	202	136	137
21	122	114	e68	e76	115	121	182	1040	846	193	130	135
22	128	115	e64	e84	122	124	179	989	897	189	126	131
23	121	114	e62	92	111	128	179	1060	789	186	122	130
24	115	109	e62	e86	112	123	201	991	678	179	113	141
25	123	114	e62	e82	116	117	259	930	608	177	114	145
26	126	117	e63	77	117	114	272	862	556	177	113	136
27	123	111	e64	e80	108	119	284	769	537	171	119	130
28	121	97	e66	e80	105	122	299	708	501	169	120	129
29	121	123	e66	e86	108	125	281	647	463	173	114	128
30	122	125	e64	e90	---	125	276	640	426	178	111	131
31	123	---	e64	e90	---	129	---	696	---	172	110	---
TOTAL	4062	3518	2447	2471	3322	3654	6155	23866	27046	7492	4291	3701
MEAN	131	117	78.9	79.7	115	118	205	770	902	242	138	123
MAX	153	132	121	92	127	129	299	1320	1370	398	169	145
MIN	115	97	48	66	90	109	136	285	426	169	110	106
AC-FT	8060	6980	4850	4900	6590	7250	12210	47340	53650	14860	8510	7340

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1919 - 1996, BY WATER YEAR (WY)

MEAN	128	117	108	103	105	107	158	614	1007	315	160	130
MAX	240	209	170	150	150	167	287	1072	1889	1119	276	215
(WY)	1985	1985	1921	1987	1984	1986	1962	1969	1978	1957	1920	1984
MIN	90.1	84.9	72.2	70.4	77.7	77.3	104	328	194	92.2	88.9	85.0
(WY)	1978	1991	1994	1981	1991	1992	1968	1957	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1919 - 1996
ANNUAL TOTAL	112620	92025	
ANNUAL MEAN	309	251	254
HIGHEST ANNUAL MEAN			363
LOWEST ANNUAL MEAN			129
HIGHEST DAILY MEAN	2140	Jun 17	2970
LOWEST DAILY MEAN	48	Dec 18	47
ANNUAL SEVEN-DAY MINIMUM	63	Dec 22	62
INSTANTANEOUS PEAK FLOW		1480	3150
INSTANTANEOUS PEAK STAGE		4.70	Jun 27
ANNUAL RUNOFF (AC-FT)	223400	182500	184200
10 PERCENT EXCEEDS	928	770	626
50 PERCENT EXCEEDS	123	125	127
90 PERCENT EXCEEDS	80	80	90

e-Estimated.

a-Maximum gage height, 7.07 ft, Jun 30, 1957, site and datum then in use.

GREEN RIVER BASIN

**09304000 SOUTH FORK WHITE RIVER AT BUFORD, CO--Continued**

**WATER-QUALITY RECORDS**

PERIOD OF RECORD--October 1984 to September 1992. October 1994 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

		DIS-CHARGE, INST.	SPE-CIFIC	pH	TEMPER-ATURE	OXYGEN, DIS-SOLVED	OXYGEN DEMAND,	COLI-FORM, BIO-FECAL	HARD-NESS	CALCIUM
DATE	TIME	CUBIC FEET PER SECOND	CON-DUCT-ANCE (US/CM)	(STAND-ARD UNITS)	(DEG C)	(MG/L)	5 DAY (MG/L)	100 ML (COLS./ 100 ML)	TOTAL (MG/L AS CACO3)	DIS-SOLVED (MG/L AS CA)
JAN 11...	1530	217	268	8.0	0.0	11.5	0.8	K21	--	--
MAR 25...	1500	129	275	8.3	2.5	12.0	1.4	56	150	43
APR 19...	1045	190	276	8.5	1.5	11.5	0.5	41	--	--
JUN 20...	1020	837	172	8.0	7.5	9.6	0.6	71	--	--
SEP 04...	1645	105	302	8.2	17.0	9.1	1.1	K35	150	45
SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L AS MG) AS NA)										
MAR 25...	9.3	2.2	0.1	0.7	118	27	0.7	0.1	16	170
SEP 04...	9.5	2.1	0.1	1.0	123	35	0.5	<0.1	15	182
NITRO-PHOSPHORUS PHOS-ORTHOPHOSPHORUS, DIS-SOLVED (TONS AC-FT) AS P)										
JAN 11...	--	--	<0.01	0.15	<0.015	0.6	<0.2	0.03	0.03	0.02
MAR 25...	0.23	59.3	<0.01	0.06	0.03	<0.2	<0.2	<0.01	<0.01	0.02
APR 19...	--	--	<0.01	0.16	<0.015	<0.2	<0.2	<0.01	0.01	<0.01
JUN 20...	--	--	<0.01	0.05	0.04	<0.2	<0.2	<0.01	<0.01	<0.01
SEP 04...	0.25	51.7	<0.01	0.07	0.03	<0.2	<0.2	0.02	0.01	0.02
ALUM-COBALT, TOTAL RECOVERABLE (UG/L AS AL) AS AL)										
MAR 25...	--	<10	<1	<100	<10	--	<1	<1	<1	<1
SEP 04...	10	<5	<1	200	<10	10	<1	<1	<1	1

K-Based on non-ideal colony count.

## GREEN RIVER BASIN

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**09304000 SOUTH FORK WHITE RIVER AT BUFORD, CO--Continued**

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

	IRON,	LEAD,	LITHIUM	MANGANESE,	MOLYBDENUM,	NICKEL,	SELENIUM,	STRONTIUM,	ZINC,
	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	NIUM,	TOTAL	TOTAL
	RECOV-	RECOV-	RECOV-	RECOV-	RECOV-	RECOV-	DIS-	RECOV-	RECOV-
	ERABLE	ERABLE	ERABLE	ERABLE	ERABLE	ERABLE	SOLVED	ERABLE	ERABLE
DATE	(UG/L AS FE)	(UG/L AS PB)	(UG/L AS LI)	(UG/L AS MN)	(UG/L AS MO)	(UG/L AS NI)	(UG/L AS SE)	(UG/L AS SR)	(UG/L AS ZN)
MAR 25...	90	<1	<10	10	<1	<1	<1	230	<10
SEP 04...	20	<1	<10	<10	<1	<1	<1	<100	<10

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-	SEDI-	SEDI-
		CHARGE,	INST.	MENT,
		CUBIC	MENT,	CHARGE,
		FEET	SUS-	SUS-
			PENDED	PENDED
			(MG/L)	(T/DAY)
JAN 11...	1530	217	38	22
MAR 25...	1500	129	18	6.2
APR 19...	1045	190	14	7.4
JUN 20...	1020	837	11	25
SEP 04...	1645	105	4	1.2

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-	SEDI-
		CHARGE,	MENT,
		INST.	SEDIMENT,
		CUBIC	CHARGE,
		FEET	SUS-
		PER	SUS-
		SECOND	PENDED
MAR 21...	1030	106	19
APR 20...	1130	122	5
JUN 29...	1300	1550	84
JUL 21...	1045	634	24
AUG 17...	1045	198	11
SEP 22...	1000	131	4
		(MG/L)	(T/DAY)

## GREEN RIVER BASIN

**09304200 WHITE RIVER ABOVE COAL CREEK NEAR MEEKER, CO**

LOCATION.--Lat 40°00'18", long 107°49'29", in NW<sup>1/4</sup>NW<sup>1/4</sup> sec.3, T.1 S., R.93 W., Rio Blanco County, Hydrologic Unit 14050005, on left bank 15 ft downstream from county road bridge, 2.3 mi upstream from Coal Creek, and 5.0 mi southeast of Meeker.

DRAINAGE AREA.--648 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--October 1961 to current year. Water-quality data available, March 1970 to September 1992.

REVISED RECORDS.--WDR CO-79-3: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,400 ft above sea level, from topographic map. Oct. 1, 1961 to Sept. 30, 1976, at site 76 ft upstream at datum 2.00 ft, higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversion upstream from station for irrigation of about 8,000 acres and about 4,000 acres downstream from station.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	441	446	377	e264	e297	e342	e470	865	1360	796	419	121
2	412	405	376	e266	e304	e334	e520	909	1370	741	409	113
3	431	360	366	e268	e292	e328	e530	1030	1410	707	386	109
4	480	385	368	e270	e305	e342	e540	1210	1480	674	388	101
5	473	383	385	e276	e316	e342	e545	1360	1780	647	341	107
6	436	398	387	e285	e315	e334	e550	1680	2240	652	313	136
7	449	398	379	e292	e329	e325	e590	1800	2490	610	313	153
8	448	385	374	e295	e327	e331	e679	1880	2580	583	296	143
9	434	389	369	e298	e330	e340	909	2150	2440	608	290	136
10	432	411	367	e296	e333	e345	957	2120	2350	587	284	129
11	433	375	359	e292	e341	e350	1010	2060	2120	578	280	132
12	433	396	358	e300	e348	e362	918	1990	2050	558	318	164
13	437	390	368	e301	e320	e365	830	2430	2030	516	294	177
14	416	397	365	e300	e302	e350	770	2430	1880	474	308	189
15	410	392	311	e297	e315	346	711	2640	1800	464	245	189
16	406	387	360	e296	e317	351	665	2770	1780	512	227	202
17	408	384	346	e290	e324	370	668	2680	1670	501	214	248
18	416	380	302	e280	e350	398	631	2830	1650	562	209	266
19	413	380	286	e276	e370	399	616	3210	1660	605	259	277
20	400	378	295	e277	e400	395	580	3240	1560	524	265	287
21	406	377	e275	e282	e450	394	551	3840	1680	473	209	293
22	427	379	e269	e286	e500	390	526	3640	2030	440	193	297
23	413	377	e258	e296	e400	401	544	3380	1760	449	182	310
24	406	367	e255	e312	e350	447	617	2800	1480	428	170	331
25	417	371	e261	e265	e360	471	860	2430	1250	417	167	334
26	418	377	e262	e258	e360	505	959	2340	1120	422	158	341
27	415	380	e265	e270	e346	e400	1020	2110	1100	413	157	348
28	404	355	e253	e265	e335	e430	1080	1990	1060	395	150	346
29	402	383	e266	e292	e329	e440	1020	2040	969	404	132	338
30	408	388	e272	e297	--	e445	907	1640	868	434	123	329
31	407	--	e262	e305	--	e450	--	1570	--	423	121	--
TOTAL	13131	11573	9996	8847	9965	11822	21773	69064	51017	16597	7820	6646
MEAN	424	386	322	285	344	381	726	2228	1701	535	252	222
MAX	480	446	387	312	500	505	1080	3840	2580	796	419	348
MIN	400	355	253	258	292	325	470	865	868	395	121	101
AC-FT	26050	22960	19830	17550	19770	23450	43190	137000	101200	32920	15510	13180

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1996, BY WATER YEAR (WY)

MEAN	347	335	300	286	281	301	510	1499	1760	590	294	255
MAX	585	488	424	404	387	448	1034	2785	3526	1924	759	547
(WY)	1985	1987	1986	1986	1986	1986	1985	1985	1984	1995	1984	1984
MIN	141	229	184	181	208	225	319	397	194	29.3	42.4	71.7

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1962 - 1996
ANNUAL TOTAL	285126	238251	
ANNUAL MEAN	781	651	564
HIGHEST ANNUAL MEAN			966
LOWEST ANNUAL MEAN			208
HIGHEST DAILY MEAN	4860	Jun 17	5360
LOWEST DAILY MEAN	a210	Jan 13	b6.5
ANNUAL SEVEN-DAY MINIMUM	213	Jan 16	Jul 19 1977
INSTANTANEOUS PEAK FLOW		114 Aug 30	8.8 Jul 16 1977
INSTANTANEOUS PEAK STAGE		4040 May 21	5740 Jun 26 1983
ANNUAL RUNOFF (AC-FT)	565500	5.38 May 21	7.07 Jun 26 1983
10 PERCENT EXCEEDS	2560	472600	408400
50 PERCENT EXCEEDS	377	1770	1380
90 PERCENT EXCEEDS	247	388	323
		259	213

e-Estimated.

a-Also occurred Jan 20 and Feb 16.

b-Also occurred Jul 20-21, 1977.

## 09304200 WHITE RIVER ABOVE COAL CREEK NEAR MEEKER, CO--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1978 to September 1984, October 1986 to September 1992, October 1994 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1978 to September 1984.

WATER TEMPERATURES: July 1978 to September 1984.

INSTRUMENTATION.--Water-quality monitor July 1978 to September 1984.

REMARKS.--Unpublished daily maximum and minimum specific conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 511 microsiemens Dec. 24, 1981; minimum 152 microsiemens June 14, 1980.

WATER TEMPERATURES: Maximum, 22.0°C July 8, 1981; minimum, 0.0°C on many days during winter months.

EXTREME OUTSIDE PERIOD OF DAILY RECORD.--A specific conductance of 544 microsiemens was measured Sept. 5, 1990.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET	SPE-CIFIC CON-DUCT- ANCE PER SECOND	pH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN 5 DAY (MG/L)	OXYGEN DEMAND, BIO- ICAL, CHEM- ICAL, 5 DAY (MG/L)	COLI- FORM, FECAL, TOTAL (COLS./ 100 ML)	COLI- NESS, HARD- TOTAL (MG/L)	CALCIUM AS CACO3)
JAN 11...	1730	325	404	8.2	0.0	11.8	1.3	K12	--	--	--
MAR 12...	1230	339	411	8.0	4.5	10.6	0.4	150	200	63	
APR 19...	1300	621	363	8.4	3.5	10.8	--	32	--	--	--
MAY 07...	1354	1600	245	--	8.5	--	1.1	--	--	--	--
JUN 24...	1000	1570	224	7.8	10.5	9.7	0.7	74	--	--	--
SEP 05...	1330	104	461	8.2	13.0	9.7	1.3	64	220	68	
DATE		MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)
MAR 12...	11	3.8	0.1	1.0	115	92	1.5	0.20	16	257	
SEP 05...	12	6.4	0.2	1.2	139	96	2.8	0.20	16	286	
DATE		SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. TOTAL (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)
JAN 11...	--	--	<0.01	0.15	<0.015	0.60	<0.20	0.04	0.03	0.02	
MAR 12...	0.35	236	<0.01	<0.05	<0.015	<0.20	<0.20	<0.01	0.02	<0.01	
APR 19...	--	--	<0.01	0.17	0.02	<0.20	<0.20	<0.01	<0.01	<0.01	
JUN 24...	--	--	<0.01	0.06	<0.015	<0.20	<0.20	0.02	0.01	0.02	
SEP 05...	0.39	80.3	<0.01	<0.05	<0.015	<0.20	<0.20	<0.01	0.01	0.01	

K-Based on non-ideal colony count.

## GREEN RIVER BASIN

## 09304200 WHITE RIVER ABOVE COAL CREEK NEAR MEEKER, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	ALUM-	ALUM-	BARIUM,	BERYL-	CADMIUM	CHRO-	COBALT,	COPPER,
	INUM, TOTAL RECOV- ERABLE	INUM, DIS- SOLVED (UG/L AS AL)	TOTAL ARSENIC (UG/L AS AS)	TOTAL RECOV- ERABLE (UG/L AS BA)	LIUM, BORON, RECOV- ERABLE (UG/L AS BE)	TOTAL RECOV- ERABLE (UG/L AS B)	MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	TOTAL RECOV- ERABLE (UG/L AS CO)
MAR 12...		20	20	<1	<100	<10	20	<1
SEP 05...		<10	6	--	200	<10	20	<1
								1
DATE	IRON, TOTAL RECOV- ERABLE	LEAD, TOTAL RECOV- ERABLE	LITHIUM ERABLE (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS PB)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS LI)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS MN)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS MO)	STRON- TIUM, TOTAL RECOV- ERABLE (UG/L AS SR)
	(UG/L AS FE)	(UG/L AS PB)	(UG/L AS LI)	(UG/L AS MN)	(UG/L AS MO)	(UG/L AS NI)	(UG/L AS SE)	(UG/L AS ZN)
MAR 12...		70	<1	<10	10	<1	<1	580
SEP 05...		50	<1	<10	20	<1	<1	<100
								<10

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
OCT 02...	1349	404	370	9.5	JUN 11...	0930	2210	204	7.5
NOV 24...	1015	377	386	1.5	JUL 30...	1230	429	374	15.5
FEB 14...	1235	278	407	1.0	AUG 30...	1400	119	452	16.5
APR 08...	0910	647	349	6.5					

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, CHARGE, SUS- PENDED (T/DAY)
JAN 11...	1730	325	54	47
MAR 12...	1230	339	10	9.6
APR 19...	1300	621	13	21
JUN 24...	1000	1570	29	121
SEP 05...	1330	104	10	2.8

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, CHARGE, SUS- PENDED (T/DAY)
MAR 23...	1500	313	38	32
JUN 20...	2000	3400	71	652
JUL 21...	1230	1490	34	136
AUG 17...	1145	404	8	8.7
SEP 22...	1100	309	16	13

**09304500 WHITE RIVER NEAR MEEKER, CO**

LOCATION.--Lat 40°02'01", long 107°51'42", in NE<sup>1/4</sup>NE<sup>1/4</sup> sec.30, T.1 N., R.93 W., Rio Blanco County, Hydrologic Unit 14050005, on left bank at downstream abutment of private bridge, 1.0 mi upstream from Curtis Creek and 2.5 mi east of Meeker.

DRAINAGE AREA.--755 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1901 to December 1906, October 1909 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "at Meeker" 1901-13.

REVISED RECORDS.--WDR CO-79-3: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,300 ft above sea level, from topographic map. Prior to Oct. 31, 1906, and May 7 to Aug. 13, 1910, nonrecording gage, and Aug. 14, 1910 to Oct. 19, 1913, water-stage recorder, at site 2.5 mi downstream, at different datum. Oct. 20, 1913 to Sept. 30, 1971, water-stage recorder at present site, at datum 3.00 ft, higher, prior to Oct. 1, 1933, and at datum 2.00 ft, higher, thereafter.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 12,000 acres upstream from station, and about 3,000 acres downstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	527	494	408	e289	e312	372	482	933	1570	898	460	232
2	496	453	404	e291	e319	364	543	954	1680	850	456	224
3	496	395	387	e293	e307	358	552	1060	1860	816	440	223
4	554	422	389	e295	e320	372	559	1250	2060	783	436	217
5	551	418	411	e301	e331	372	563	1370	2290	768	401	225
6	499	440	411	e310	e330	369	574	1680	2470	757	368	257
7	503	438	403	e317	e344	350	615	1860	2460	715	366	274
8	495	425	393	e320	e342	356	682	1890	2440	689	360	265
9	486	427	387	e323	e345	365	820	2080	2370	689	357	256
10	479	454	385	e321	e348	370	982	2050	2380	655	352	249
11	479	410	382	e317	e356	380	1040	2040	2210	645	354	252
12	481	445	379	e325	e363	397	936	2280	2040	612	381	301
13	487	433	386	e326	e345	399	881	2510	2050	588	357	319
14	466	429	384	e325	e348	401	802	2510	1920	565	362	329
15	456	429	335	e322	e340	415	751	2580	1860	572	315	329
16	448	425	379	e321	e342	430	751	2800	1810	617	297	329
17	446	420	361	e315	e349	427	714	3350	1780	627	289	381
18	449	416	321	e305	e350	401	691	3150	1780	670	286	392
19	453	413	311	e301	e370	373	680	3010	1750	642	333	407
20	444	410	318	e302	e400	385	633	2740	1680	566	354	406
21	443	406	e300	e307	e470	421	628	2380	1830	519	301	408
22	463	398	e294	e311	e540	482	602	2230	2020	507	294	401
23	456	398	e283	e321	400	532	588	2290	1780	512	282	409
24	446	392	e280	e337	377	469	661	2120	1520	500	264	434
25	466	393	e286	e290	386	409	908	1990	1350	488	260	442
26	469	402	e287	e283	387	403	1020	1930	1240	494	251	445
27	466	407	e290	e295	371	415	1090	1700	1200	485	263	449
28	451	369	e278	e280	360	424	1150	1610	1150	474	259	436
29	444	407	e291	e307	354	454	988	1570	1060	480	243	428
30	446	418	e297	e312	---	447	921	1480	963	503	237	417
31	449	---	e287	e320	---	451	---	1530	--	463	227	--
TOTAL	14694	12586	10707	9582	10506	12563	22807	62927	54573	19149	10205	10136
MEAN	474	420	345	309	362	405	760	2030	1819	618	329	338
MAX	554	494	411	337	540	532	1150	3350	2470	898	460	449
MIN	443	369	278	280	307	350	482	933	963	463	227	217
AC-FT	29150	24960	21240	19010	20840	24920	45240	124800	108200	37980	20240	20100

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 1996, BY WATER YEAR (WY)

	MEAN	389	368	331	311	307	341	546	1550	1903	690	388	356
(WY)	MAX	652	648	460	410	420	522	1094	2829	4091	2524	866	716
	1985	1929	1929	1929	1930	1986	1962	1985	1921	1957	1984	1929	
	MIN	215	255	233	225	232	261	313	499	264	116	140	156
	(WY)	1978	1978	1978	1981	1935	1944	1977	1934	1977	1994	1977	1977

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1910 - 1996

ANNUAL TOTAL	310870	250435		
ANNUAL MEAN	852	684	624	
HIGHEST ANNUAL MEAN			1044	1984
LOWEST ANNUAL MEAN			274	1977
HIGHEST DAILY MEAN	5030	Jun 17	3350	May 17
LOWEST DAILY MEAN	233	Mar 7	217	Sep 4
ANNUAL SEVEN-DAY MINIMUM	237	Jan 16	226	Aug 30
INSTANTANEOUS PEAK FLOW			3530	May 17
INSTANTANEOUS PEAK STAGE			5.18	May 17
ANNUAL RUNOFF (AC-FT)	616600	496700	451900	
10 PERCENT EXCEEDS	2780	1790	1470	
50 PERCENT EXCEEDS	404	426	370	
90 PERCENT EXCEEDS	273	294	270	

e-Estimated.

a-Maximum gage height, 7.60 ft, Jun 16, 1921 present datum.

## GREEN RIVER BASIN

**09304800 WHITE RIVER BELOW MEEKER, CO**

LOCATION.--Lat 40°00'48", long 108°05'33", in SW<sup>1/4</sup>NE<sup>1/4</sup> sec.31, T.1 N., R.95 W., Rio Blanco County, Hydrologic Unit 14050005, on left bank 30 ft downstream from county bridge, 4.5 mi downstream from Strawberry Creek, and 10 mi west of Meeker.

DRAINAGE AREA.--1,024 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--October 1961 to current year.

REVISED RECORDS.--WDR CO-79-3: Drainage area. WDR CO-86-2: 1985.

GAGE.--Water-stage recorder. Elevation of gage is 5,928 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 22,000 acres upstream and a few small hay meadows downstream from station.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	670	574	467	e380	e350	e360	466	951	1630	1060	456	261
2	595	543	457	e360	e340	e370	522	954	1720	1020	456	268
3	594	453	442	e370	e320	e400	534	1050	1850	967	439	252
4	664	480	445	e390	e350	e400	540	1230	2020	935	435	219
5	685	485	465	e400	e380	e400	547	1380	2160	925	409	215
6	604	515	466	e390	e410	e380	549	1650	2350	925	358	278
7	593	508	458	e390	e400	e370	593	1810	2390	848	353	326
8	584	488	450	e400	e380	e380	656	1830	2380	789	347	319
9	566	506	443	e410	e370	e410	791	1990	2320	792	333	305
10	556	539	438	e410	e350	e450	983	1980	2310	769	333	299
11	551	477	431	e400	e330	e480	1080	1940	2220	761	336	297
12	552	514	428	e390	e320	e480	1010	2130	2110	685	344	358
13	564	502	438	e390	e330	e490	944	2340	2090	627	353	415
14	541	504	437	e390	e340	e510	868	2410	2020	601	337	407
15	524	494	363	e390	e340	e510	814	2500	1970	597	313	399
16	522	486	423	e380	e340	e500	802	2670	1940	669	282	391
17	518	480	408	e370	e340	e490	747	3010	1900	648	267	484
18	518	470	362	e360	e370	e470	722	2920	1860	701	272	466
19	516	468	321	e350	e388	e440	711	2810	1850	721	313	473
20	502	463	323	e370	e485	e450	636	2610	1810	596	379	476
21	502	459	344	e370	e600	420	634	2300	1980	530	315	468
22	536	457	335	e370	e800	464	595	2140	2200	501	314	462
23	532	454	296	e360	e697	586	569	2170	1960	506	297	463
24	509	443	227	e360	e545	497	632	2060	1740	485	273	487
25	535	442	225	e360	e471	420	870	1910	1550	471	277	501
26	538	466	e250	e350	e431	401	1020	1920	1420	481	282	507
27	539	471	e270	e340	e390	420	1090	1740	1400	459	304	514
28	513	422	e300	e360	e360	426	1180	1670	1340	453	306	484
29	509	467	e340	e370	e350	452	1030	1690	1240	490	275	469
30	517	482	e370	e370	--	447	950	1550	1140	567	256	452
31	517	--	e380	e360	--	443	--	1580	--	474	252	--
TOTAL	17166	14512	11802	11660	11877	13716	23085	60895	56870	21053	10266	11715
MEAN	554	484	381	376	410	442	769	1964	1896	679	331	390
MAX	685	574	467	410	800	586	1180	3010	2390	1060	456	514
MIN	502	422	225	340	320	360	466	951	1140	453	252	215
AC-FT	34050	28780	23410	23130	23560	27210	45790	120800	112800	41760	20360	23240

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1996, BY WATER YEAR (WY)

MEAN	449	410	365	336	338	388	590	1551	1893	765	420	389
MAX	793	637	536	493	457	586	1141	2979	3904	2155	837	712
(WY)	1985	1985	1985	1986	1986	1986	1986	1985	1985	1995	1984	1984
MIN	260	282	266	230	251	285	393	374	283	147	172	213
(WY)	1978	1978	1964	1976	1977	1981	1977	1977	1977	1977	1990	1990

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1962 - 1996
ANNUAL TOTAL	314728	264617	
ANNUAL MEAN	862	723	658
HIGHEST ANNUAL MEAN			1069
LOWEST ANNUAL MEAN			290
HIGHEST DAILY MEAN	4490	Jun 17	1985
LOWEST DAILY MEAN	225	Dec 25	1977
ANNUAL SEVEN-DAY MINIMUM	256	Jan 1	1977
INSTANTANEOUS PEAK FLOW		3170	Jun 26 1983
INSTANTANEOUS PEAK STAGE		3.85	Jun 26 1983
ANNUAL RUNOFF (AC-FT)	624300	524900	4.97
10 PERCENT EXCEEDS	2660	1850	476900
50 PERCENT EXCEEDS	467	480	1490
90 PERCENT EXCEEDS	290	325	410
			280

e-Estimated.

GREEN RIVER BASIN

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**09304800 WHITE RIVER BELOW MEEKER, CO--Continued**

## **WATER-QUALITY RECORDS**

PERIOD OF RECORD.--April 1974 to September 1984, October 1985 to September 1992, October 1994 to current year.

PERIOD OF DAILY RECORD--

SPECIFIC CONDUCTANCE: July 1978 to September 1983.

**WATER TEMPERATURES:** July 1978 to September 1983.

INSTRUMENTATION.--Water-quality monitor July 1978 to September 1983.

REMARKS--Unpublished maximum and minimum specific conductance data for period of daily record available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD

SPECIFIC CONDUCTANCE: Maximum, 908 microsiemens Aug. 30, 1981; minimum, 221 microsiemens June 13, 1980.

WATER TEMPERATURES Maximum, 25.0°C Aug. 7, 1978, Aug. 7, 1980; minimum, 0.0°C many days during winter months.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

#### K-Based on non-ideal colony count

## GREEN RIVER BASIN

**09304800 WHITE RIVER BELOW MEEKER, CO--Continued**

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	STRON- TIUM, TOTAL RECOV- ERABLE (UG/L AS SR)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
MAR 25...	480	<1	10	50	2	1	2	760	10
SEP 10...	100	<1	20	10	2	<1	<1	700	<10

## MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
OCT 11...	1030	537	519	8.0	MAY 16...	1128	2840	245	10.0
NOV 06...	1650	498	519	5.0	JUN 11...	1046	2360	284	10.0
JAN 24...	1030	394	530	0.0	JUL 11...	0900	762	473	15.5
MAR 13...	0845	478	673	8.0	AUG 28...	1400	322	644	19.0
APR 18...	1110	709	534	4.5					

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SED. SIEVE DIAM. % FINE THAN .062 MM
JAN 10...	1730	396	56	60
MAR 25...	1200	438	64	75
APR 30...	1130	963	67	174
JUN 24...	0800	1800	31	150
SEP 10...	1600	306	17	14

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)
MAR 24...	1130	358	70
APR 20...	1600	426	58
JUN 28...	1700	3110	103
JUL 20...	1530	1730	23
AUG 18...	1240	493	60
SEP 21...	1100	465	20

## 09306007 PICEANCE CREEK BELOW RIO BLANCO, CO

LOCATION.--Lat 39°49'34", long 108°10'57", in SE<sup>1/4</sup>SE<sup>1/4</sup> sec. 32, T.2 S., R.96 W., Rio Blanco County, Hydrologic Unit 14050006, on left bank 20 ft downstream from private bridge, 1,100 ft upstream from Stewart Gulch, and 14.3 mi west of Rio Blanco.

DRAINAGE AREA.--177 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1974 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,366 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Several diversions upstream from station for irrigation of hay meadows.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	12	15	8.6	e7.4	13	43	50	20	7.7	14	10
2	16	11	14	e7.4	e7.0	13	44	50	21	7.4	13	10
3	17	11	14	e6.8	e5.4	12	39	50	20	8.2	13	10
4	21	11	14	e7.8	e5.8	12	36	51	19	8.5	16	10
5	21	11	14	8.6	e6.8	12	35	50	18	8.6	15	10
6	19	11	14	e7.6	7.4	11	34	49	14	7.8	15	11
7	19	11	14	e7.0	9.3	11	34	50	15	7.7	15	10
8	17	11	14	e7.8	8.2	11	36	45	12	7.2	14	10
9	16	11	13	8.0	8.3	12	39	41	10	7.8	14	10
10	16	12	14	7.9	8.1	13	35	38	9.5	9.9	14	10
11	16	11	13	8.4	8.1	20	40	36	8.6	10	13	11
12	15	12	12	9.1	8.2	33	44	37	10	11	13	16
13	14	12	13	8.5	8.7	43	38	36	12	11	13	23
14	14	13	12	8.5	8.5	39	37	32	12	12	13	18
15	14	13	11	8.3	8.9	37	40	31	13	14	13	15
16	14	13	12	8.5	9.6	41	51	30	21	13	12	14
17	11	13	12	e8.0	11	43	47	29	19	12	11	16
18	7.6	12	11	e7.2	13	34	48	29	15	9.3	12	14
19	7.5	12	12	e6.4	12	26	49	28	15	8.4	12	14
20	7.3	12	10	e7.2	13	26	46	23	15	6.6	12	13
21	7.7	12	10	e7.8	12	34	46	24	20	8.6	13	12
22	9.7	12	10	8.6	28	57	43	19	18	7.2	13	11
23	10	12	e8.6	e8.0	22	78	40	12	15	5.9	12	11
24	10	12	e8.0	e7.2	25	47	42	16	16	5.5	11	13
25	10	10	e8.0	e7.6	21	37	45	20	12	5.2	11	13
26	11	11	e7.6	e7.2	20	31	48	21	12	5.2	12	12
27	11	12	e7.6	e6.4	17	31	52	21	11	13	12	12
28	11	11	e7.8	e5.8	15	36	54	28	10	18	11	11
29	12	13	e7.8	e6.8	14	49	52	27	8.8	18	11	11
30	12	15	8.6	e7.6	--	45	50	20	7.9	16	11	10
31	11	--	8.6	e7.8	--	41	--	18	--	14	11	--
TOTAL	417.8	355	350.6	238.4	348.7	948	1287	1011	429.8	304.7	395	371
MEAN	13.5	11.8	11.3	7.69	12.0	30.6	42.9	32.6	14.3	9.83	12.7	12.4
MAX	21	15	15	9.1	28	78	54	51	21	18	16	23
MIN	7.3	10	7.6	5.8	5.4	11	34	12	7.9	5.2	11	10
AC-FT	829	704	695	473	692	1880	2550	2010	853	604	783	736

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1996, BY WATER YEAR (WY)

MEAN	9.42	10.6	9.46	8.48	9.26	16.2	39.1	64.0	28.4	16.6	15.7	10.2
MAX	23.2	25.4	24.0	27.0	37.2	73.4	165	230	126	68.5	49.8	28.4
(WY)	1985	1986	1986	1986	1986	1986	1985	1983	1983	1984	1984	1984
MIN	2.42	2.78	3.63	2.83	3.21	2.96	2.21	3.79	3.92	4.25	2.23	2.34
(WY)	1978	1991	1991	1991	1991	1992	1977	1990	1989	1982	1994	1977

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR				FOR 1996 WATER YEAR				WATER YEARS 1975 - 1996			
ANNUAL TOTAL	8489.9				6457.0				19.8			
ANNUAL MEAN	23.3				17.6				55.0			
HIGHEST ANNUAL MEAN									5.02			
LOWEST ANNUAL MEAN									410			
HIGHEST DAILY MEAN	210				Mar 23				May 15 1984			
LOWEST DAILY MEAN	1.4				a5.2 Jul 25				.06 Jul 21 1992			
ANNUAL SEVEN-DAY MINIMUM	1.6				6.3 Jul 20				.06 Jul 21 1992			
INSTANTANEOUS PEAK FLOW					112 Mar 23				b520 Jul 19 1977			
INSTANTANEOUS PEAK STAGE					3.68 Mar 23				c7.01 Jul 19 1977			
ANNUAL RUNOFF (AC-FT)	16840				12810				14370			
10 PERCENT EXCEEDS	51				40				41			
50 PERCENT EXCEEDS	12				12				9.7			
90 PERCENT EXCEEDS	5.1				7.8				3.6			

e-Estimated.

a-Also occurred Jul 26.

b-From rating curve based on indirect measurement of peak flow.

c-Maximum gage height, 7.47 ft, May 16, 1984.

## GREEN RIVER BASIN

**09306007 PICEANCE CREEK BELOW RIO BLANCO, CO--Continued**  
**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--April 1974 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1974 to September 1985.

pH: December 1974 to September 1984.

WATER TEMPERATURE: December 1974 to September 1985.

DISSOLVED OXYGEN: December 1974 to September 1984.

SUSPENDED SEDIMENT DISCHARGE: April 1974 to September 1985.

INSTRUMENTATION.--Automatic pumping sediment sampler April 1974 to September 1985. Water-quality monitor December 1974 to September 1985.

REMARKS.--Unpublished maximum and minimum specific conductance data for period of daily record available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,690 microsiemens June 21, 1976; minimum, 344 microsiemens Apr. 13, 1976.

pH: Maximum, 9.0 units June 21, 1976; minimum, 7.0 units May 24, 1976.

WATER TEMPERATURES: Maximum, 29.5°C July 25, 1977; minimum, freezing point on many days during winter months each year.

DISSOLVED OXYGEN: Maximum, 15.7 mg/L Oct. 8, 1975; minimum, 5.1 mg/L July 17, 1979.

SEDIMENT CONCENTRATIONS: Maximum daily, 20,300 mg/L July 20, 1974; minimum daily, 6 mg/L several days during September 1976.

SEDIMENT LOADS: Maximum daily, 18,600 tons May 16, 1984; minimum daily, 0.02 ton Apr. 20, 1981.

**WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996**

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
NOV 06...	1230	11	1130	8.5	7.0	--	410	79	50	110
MAR 11...	1215	13	1050	8.5	8.5	11.4	360	71	44	100
MAY 15...	0910	30	1010	8.3	9.0	10.2	350	73	41	91
AUG 26...	1000	12	1170	8.5	12.5	11.9	370	72	46	110
<hr/>										
DATE	RATIO	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
NOV 06...	2	2.5	328	250	16	0.7	13	723	0.98	21.5
MAR 11...	2	2.7	366	210	15	0.8	13	676	0.92	23.5
MAY 15...	2	2.2	340	190	12	0.6	13	632	0.86	51.2
AUG 26...	2	2.2	354	230	16	0.9	13	708	0.96	23.7
<hr/>										
DATE		NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA + DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)			
NOV 06...		<0.01	0.71	<0.015	0.3	<0.01	<0.01			
MAY 15...		<0.01	0.78	<0.015	0.3	0.02	0.02			
AUG 26...		0.02	0.87	0.040	0.2	0.01	0.01			

## 09306007 PICEANCE CREEK BELOW RIO BLANCO, CO--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS BA)	COBALT, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS CO)	LITHIUM DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS LI)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MN)	NICKEL, DIS- SOLVED (UG/L AS MO)	STRON- TIUM, DIS- SOLVED (UG/L AS NI)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 06...	--	--	170	--	--	--	--	--	--	1600	--
MAY 15...	2	91	130	<1	3	14	34	6	<1	1200	<3
AUG 26...	2	88	150	<1	5	13	55	5	<1	1500	<3

## MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
OCT 10...	1135	16	1130	7.5	JUN 11...	1431	8.3	1230	15.5
JAN 22...	1300	8.6	1160	1.5	JUL 10...	1136	11	1290	16.5
APR 15...	1228	39	1010	6.5					

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
NOV 06...	1230	11	76	2.3	AUG 26...	1000	12	34	1.1
MAY 15...	0910	30	269	22					

## GREEN RIVER BASIN

**09306022 STEWART GULCH ABOVE WEST FORK, NEAR RIO BLANCO, CO****WATER-QUALITY RECORDS**

LOCATION.--Lat 39°49'09", long 108°11'08", in SE<sup>1/4</sup>NE<sup>1/4</sup> sec.5, T.3 S., R.96 W., Rio Blanco County, Hydrologic Unit 14050006, on left bank 0.6 mi upstream from mouth, about 300 ft above confluence with West Fork Stewart Gulch, and 14.2 mi west of Rio Blanco.

DRAINAGE AREA.--44.0 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1974 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1974 to September 1982.

pH: October 1974 to March 1982.

WATER TEMPERATURE: October 1974 to September 1982.

DISSOLVED OXYGEN: October 1974 to March 1982.

SUSPENDED-SEDIMENT DISCHARGE: October 1974 to September 1982.

INSTRUMENTATION.--Water-quality monitor October 1974 to September 1982. Pumping sediment sampler October 1974 to September 1982.

REMARKS.--Unpublished maximum and minimum specific conductance data for period of daily record available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 2,200 microsiemens Nov. 10, 1975; minimum, 583 microsiemens Feb. 22, 1982.

pH: Maximum, 8.9 units Dec. 9, 11, 1979; minimum, 7.6 units Oct. 7, 1975.

WATER TEMPERATURES: Maximum, 20.5°C July 3, 1976, June 3, 1977; minimum, 0.0°C Jan. 9, Dec. 17, 1977, Mar. 3, Dec. 2 - 3, 1978, Jan. 29, 1979.

DISSOLVED OXYGEN: Maximum, 16.6 mg/L Jan. 13, 1976; minimum, 3.6 mg/L Aug. 19-20, 1977.

SEDIMENT CONCENTRATIONS: Maximum daily, 1,350 mg/L June 8, 1975; minimum daily, no flow Aug. 7-9, 1975.

SEDIMENT LOADS: Maximum daily, 10 tons estimated June 8, 1975; minimum daily, no flow Aug. 7-9, 1975.

**WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996**

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	MAGNE- SIUM, CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
NOV 06...	1350	1.6	1370	8.6	10.0	10.9	530	92	72	120
MAR 11...	1310	2.0	1290	8.5	12.5	11.5	480	83	67	110
JUN 13...	1500	1.6	1440	8.4	12.5	6.9	550	97	75	120
AUG 27...	1300	0.39	1440	8.5	13.0	9.1	530	88	74	120

DATE	RATIO	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (TONS PER AC-FT)	SOLIDs, DIS- SOLVED (TONS PER AC-FT)
NOV 06...	2	1.4	323	390	8.9	0.2	13	899	1.22	
MAR 11...	2	2.0	363	330	7.6	0.2	12	829	1.13	
JUN 13...	2	1.3	378	400	9.1	0.3	15	951	1.29	
AUG 27...	2	1.3	358	390	9.0	0.2	16	920	1.25	

DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA + ORGANIC DIS. SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. SOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	
NOV 06...	3.81	<0.01	1.10	<0.015	0.4	<0.01	<0.01	90	2800	
MAR 11...	4.48	--	--	--	--	--	--	--	--	
JUN 13...	4.08	0.01	0.86	<0.015	<0.2	<0.01	<0.01	90	2900	
AUG 27...	0.97	0.01	0.85	<0.015	<0.2	<0.01	<0.01	80	2800	

## 09306022 STEWART GULCH ABOVE WEST FORK, NEAR RIO BLANCO, CO-Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-	SEDI-	DATE	DIS-	SEDI-			
		CHARGE, INST. CUBIC FEET	MENT, SEDI- MENT, PER SECOND		DIS- CHARGE, SUS- PENDED (MG/L)	CHARGE, INST. CUBIC FEET	MENT, SEDI- MENT, PER SECOND	DIS- CHARGE, SUS- PENDED (MG/L)	
NOV 06...	1350	1.6	70	0.30	JUN 13...	1500	1.6	10	0.05
MAR 11...	1310	2.0	67	0.36	AUG 27...	1300	0.39	10	0.01

## GREEN RIVER BASIN

09306058 WILLOW CREEK NEAR RIO BLANCO, CO

## WATER-QUALITY RECORDS

LOCATION.--Lat 39°50'14", long 108°14'37", in NW<sup>1/4</sup>NE<sup>1/4</sup> sec.35, T.2 S., R.97 W., Rio Blanco County, Hydrologic Unit 14050006, on right bank 1,500 ft upstream from mouth and 17.4 mi west of Rio Blanco.

DRAINAGE AREA.--48.4 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1974 to September 1985, October 1986 to current year.

## PERIOD OF DAILY RECORD--

SPECIFIC CONDUCTANCE: November 1974 to September 1982.

pH: March 1976 to February 1982.

WATER TEMPERATURE: November 1974 to September 1982.

DISSOLVED OXYGEN: March 1976 to February 1982.

SUSPENDED-SEDIMENT DISCHARGE: October 1974 to September 1982.

INSTRUMENTATION.--Water-quality monitor November 1974 to September 1982. Pumping sediment sampler October 1974 to September 1982.

REMARKS.--Unpublished daily maximum and minimum specific conductance data for period of daily record are available in district office.

## EXTREMES FOR PERIOD OF DAILY RECORD--

SPECIFIC CONDUCTANCE: Maximum, 1,920 microsiemens July 14, 1976; minimum, 528 microsiemens Mar. 18, 1976.

pH: Maximum, 8.8 units Mar. 11, 1980; minimum, 7.4 units June 4, 6, 1980.

WATER TEMPERATURES: Maximum, 30.5°C July 4, 1982; minimum, 0.0°C on many days during winter months each year.

DISSOLVED OXYGEN: Maximum, 12.9 mg/L Mar. 29, 1979; minimum, 3.6 mg/L Sept. 29, 1978.

SEDIMENT CONCENTRATIONS: Maximum daily, 7,030 mg/L July 29, 1979; no flow many days during 1978.

SEDIMENT LOADS: Maximum daily, 61 tons July 29-30, 1979; no flow many days during 1978.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
NOV 06...	1535	2.5	1310	8.4	6.5	11.5	520	93	70	110
MAR 11...	1430	2.9	1330	8.5	14.0	8.5	510	94	68	110
JUN 14...	0850	0.08	1380	8.5	12.5	9.8	520	82	75	120
AUG 27...	1145	0.62	1470	8.5	16.0	10	550	91	77	120
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DATE	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLID(S), SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L AC-FT)	SOLID(S), DIS- SOLVED (TONS PER AC-FT)	
NOV 06...	2	1.7	314	350	12	0.30	13	843	1.15	
MAR 11...	2	1.6	391	310	11	0.40	16	845	1.15	
JUN 14...	2	1.5	387	400	16	0.30	15	946	1.29	
AUG 27...	2	1.8	383	380	12	0.30	17	932	1.27	
<hr/>										
DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	
NOV 06...	5.62	<0.010	0.280	<0.015	0.20	<0.010	<0.010	120	2900	
MAR 11...	6.67	--	--	--	--	--	--	--	--	
JUN 14...	0.21	<0.010	0.080	<0.015	<0.20	<0.010	<0.010	130	3200	
AUG 27...	1.56	<0.010	<0.050	<0.015	<0.20	<0.010	<0.010	130	3400	

**09306058 WILLOW CREEK NEAR RIO BLANCO CO--Continued**

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-	SEDI-	DIS-	SEDI-	DIS-	SEDI-	
		CHARGE, INST. CUBIC FEET	MENT, SEDIMENT, CHARGE, SUS- PER SECOND					PENDED (MG/L)
NOV 06...	1535	2.5	99	0.66	JUN 14...	0.08	17	0.00
MAR 11...	1430	2.9	321	2.5	AUG 27...	0.62	8	0.01

## GREEN RIVER BASIN

**09306200 PICEANCE CREEK BELOW RYAN GULCH, NEAR RIO BLANCO, CO**

LOCATION.--Lat 39°55'16", long 108°17'49", in SE<sup>1/4</sup>NE<sup>1/4</sup>, sec.32, T.1 S., R.97 W., Rio Blanco County, Hydrologic Unit 14050006, on left bank at downstream side of bridge, 40 ft downstream from Ryan Gulch, and 23 mi northwest of Rio Blanco.

DRAINAGE AREA.--506 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--October 1964 to current year.

REVISED RECORDS.--WDR CO-79-3: 1977 (M).

GAGE.--Water-stage recorder with satellite telemetry, and concrete control. Elevation of gage is 6,070 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions for irrigation upstream from station.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	24	26	e19	e21	e33	53	69	10	11	24	8.7
2	33	22	26	e17	e19	e29	53	69	10	8.3	27	8.2
3	31	21	25	e16	e14	e28	50	67	11	8.9	30	8.2
4	33	21	25	e18	e15	e28	44	68	9.2	9.0	32	8.1
5	34	21	25	e18	e16	e28	41	68	9.0	9.5	32	8.6
6	33	21	25	e17	e18	e27	39	67	8.1	9.6	32	10
7	32	19	24	e16	e21	e26	40	67	7.2	11	29	11
8	30	19	24	e17	e20	e29	43	62	5.6	11	27	10
9	25	20	24	e19	e19	e28	46	55	5.4	12	30	10
10	23	22	24	e19	e30	e20	48	49	5.5	11	33	9.7
11	22	22	24	20	e19	e35	50	44	5.9	9.2	32	8.9
12	22	22	24	23	e19	e38	49	46	6.2	8.8	31	11
13	22	22	23	23	e21	53	63	46	6.7	8.4	32	16
14	22	22	23	20	e20	52	60	36	7.4	8.2	33	17
15	22	22	23	20	e21	43	59	36	8.2	9.0	35	16
16	22	22	22	19	e23	48	71	35	8.9	8.3	31	15
17	22	22	21	20	e26	53	67	33	8.4	8.7	25	16
18	20	21	23	18	e27	42	69	29	9.3	9.7	29	15
19	18	21	25	e15	e27	34	68	17	13	9.8	27	15
20	17	21	e23	e16	e29	33	66	15	9.6	10	26	16
21	17	21	e22	e18	e28	37	62	13	7.5	9.2	27	16
22	18	21	23	e19	e56	58	57	14	11	11	28	18
23	20	21	e22	e20	e52	95	56	11	13	13	28	18
24	21	21	e19	e17	e54	59	58	11	12	12	27	18
25	21	21	e18	e20	e48	44	62	9.0	12	12	21	18
26	22	21	e17	e18	e44	36	68	11	11	12	22	17
27	22	21	e17	e18	e40	35	73	12	11	11	10	17
28	21	21	e18	e16	e37	37	75	12	13	11	9.7	16
29	21	24	e19	e17	e35	55	69	16	12	15	9.3	19
30	22	27	e19	e18	---	55	68	15	13	20	8.9	19
31	22	---	e19	e19	---	49	---	11	---	21	9.2	---
TOTAL	747	646	692	571	808	1277	1727	1113.0	280.1	338.6	797.1	414.4
MEAN	24.1	21.5	22.3	18.4	27.9	41.2	57.6	35.9	9.34	10.9	25.7	13.8
MAX	37	27	26	23	56	95	75	69	13	21	35	19
MIN	17	19	17	15	14	26	39	9.0	5.4	8.2	8.9	8.1
AC-FT	1480	1280	1370	1130	1600	2530	3430	2210	556	672	1580	822

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1996, BY WATER YEAR (WY)

MEAN	21.6	26.1	24.3	21.8	25.0	33.9	43.5	63.5	32.0	23.5	30.0	21.0
MAX	69.9	58.4	60.9	55.5	61.0	112	228	326	166	98.7	95.6	65.2
(WY)	1986	1986	1984	1984	1986	1986	1986	1985	1983	1984	1984	1984
MIN	2.75	7.98	8.10	8.90	13.3	11.5	2.94	3.65	3.51	3.95	2.69	3.94
(WY)	1965	1968	1968	1979	1965	1972	1967	1967	1967	1994	1994	1981

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1965 - 1996

ANNUAL TOTAL	13445.4		9411.2									
ANNUAL MEAN	36.8		25.7									
HIGHEST ANNUAL MEAN												
LOWEST ANNUAL MEAN												
HIGHEST DAILY MEAN	237	Jun 2	95	Mar 23								
LOWEST DAILY MEAN	8.4	Apr 28	5.4	Jun 9								
ANNUAL SEVEN-DAY MINIMUM	9.3	Apr 25	6.1	Jun 7								
INSTANTANEOUS PEAK FLOW			134	Mar 23								
INSTANTANEOUS PEAK STAGE			5.38	Mar 23								
ANNUAL RUNOFF (AC-FT)	26670		18670									
10 PERCENT EXCEEDS	85		53									
50 PERCENT EXCEEDS	23		21									
90 PERCENT EXCEEDS	16		9.3									

e-Estimated.

a-Maximum gage-height, 7.81 ft, May 28, 1983.

**09306200 PICEANCE CREEK BELOW RYAN GULCH, NEAR RIO BLANCO, CO--Continued**

**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--December 1970 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1979 to September 1982, November 1985 to current year.

WATER TEMPERATURE: December 1979 to September 1982, November 1985 to current year.

SUSPENDED-SEDIMENT DISCHARGE: October 1972 to September 1983.

INSTRUMENTATION.--Automatic pumping sediment sampler October 1972 to September 1983. Water-quality monitor December 1979 to September 1982, November 1985 to current year.

REMARKS.--Unpublished maximum and minimum specific conductance data for the periods of daily record are available in the district office. Daily specific-conductance records rated fair, except for the period Nov. 8 to July 1, which is considered poor. Periods of missing or deleted record are due to instrument malfunction or sensor fouling. Daily water temperatures rated fair, except for the period May 23 to July 1, which are rated poor.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum 2,920 microsiemens, July 18, 1981; minimum, 450 microsiemens, July 15, 1992.

WATER TEMPERATURE: Maximum 28.0°C Sept. 4, 1990, minimum, 0.0°C many days during the winter period.

SEDIMENT CONCENTRATION: Maximum daily, 21,700 mg/L, July 20, 1977; minimum daily, 8 mg/L, Oct. 14, 1979, and several days in September 1981.

SEDIMENT LOADS: Maximum daily, 5,390 tons July 23, 1983; minimum daily, 0.05 ton, Sept. 27, 30, 1981.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded (more than 42 percent missing record), 2,290 microsiemens, June 9; minimum, 970 microsiemens, Mar 13.

WATER TEMPERATURE: Maximum recorded (more than 33 percent missing record), 23.9°C, July 11; minimum, 0.0°C, many days during the winter period.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
NOV 07...	1240	20	1560	8.4	6.5	13.7	530	85	77	160
MAR 12...	1215	33	1170	8.4	7.5	10.1	400	68	56	110
MAY 15...	1020	37	1260	8.4	12.0	8.6	440	78	59	120
AUG 26...	1230	22	1750	8.7	16.5	10.3	540	76	85	210
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DATE	RATIO	SODIUM AD- SORP- TION RATIO	POTAS- SIUM DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB SOLVED (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
NOV 07...	3	2.5	393	380	15	0.6	14	974	1.32	53.4
MAR 12...	2	2.8	360	270	12	0.6	13	748	1.02	67.5
MAY 15...	2	2.5	387	290	14	0.6	14	815	1.11	81.4
AUG 26...	4	3.5	513	420	18	0.8	15	1140	1.55	67.7
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DATE		NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. SOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)		
NOV 07...		<0.01	0.28	<0.02	0.3	0.01	<0.01	--		
MAY 15...		<0.01	0.50	<0.02	0.3	0.02	0.02	4.7		
AUG 26...		0.01	0.15	<0.02	0.4	0.03	0.03	5.0		

**09306200 PICEANCE CREEK BELOW RYAN GULCH, NEAR RIO BLANCO, CO--Continued**

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

		DIS- CHARGE, INST. CUBIC FEET	SEDI- MENT, MENT, SUS- SUS-	SEDI- MENT, DIS- CHARGE, SUS- SUS-		DIS- CHARGE, INST. CUBIC FEET	SEDI- MENT, DIS- CHARGE, SUS- SUS-			
DATE	TIME	PER SECOND	PENDED (MG/L)	PENDED (T/DAY)		DATE	TIME	PER SECOND	PENDED (MG/L)	PENDED (T/DAY)
NOV 07...	1240	20	424	23		MAY 15...	1020	37	238	24
AUG 26	1230	22	20	1.2						

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## GREEN RIVER BASIN

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## 09306200 PICEANCE CREEK BELOW RYAN GULCH, NEAR RIO BLANCO, CO--Continued

SPECIFIC CONDUCTANCE,(MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	1050	1040	1050
2	---	---	---	---	---	---	---	---	---	1050	1030	1040
3	---	---	---	---	---	---	---	---	---	1060	1040	1050
4	---	---	---	---	---	---	---	---	---	1050	1040	1040
5	---	---	---	---	---	---	---	---	---	1050	1030	1040
6	---	---	---	---	---	---	---	---	---	1050	1030	1040
7	---	---	---	---	---	---	---	---	---	1050	1030	1040
8	---	---	---	---	---	---	---	---	---	1070	1040	1050
9	---	---	---	---	---	---	---	---	---	1090	1060	1070
10	---	---	---	---	---	---	---	---	---	1130	1050	1090
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	1230	970	1090	---	---	---	---	---	---
14	---	---	---	1130	980	1060	---	---	---	---	---	---
15	---	---	---	1180	1110	1140	---	---	---	---	---	---
16	---	---	---	1190	1050	1110	---	---	---	1350	1240	1270
17	---	---	---	1130	1030	1060	---	---	---	1390	1330	1360
18	---	---	---	1200	1070	1130	1100	1080	1090	1390	1330	1350
19	---	---	---	1270	1190	1230	1120	1080	1090	1420	1360	1390
20	---	---	---	1280	1220	1250	1120	1100	1110	1510	1350	1430
21	---	---	---	1270	1210	1240	1120	1100	1110	1630	1510	1540
22	---	---	---	---	---	---	1130	1100	1120	1680	1540	1630
23	---	---	---	---	---	---	1160	1120	1140	1760	1660	1730
24	---	---	---	---	---	---	1150	1120	1140	1770	1700	1740
25	---	---	---	---	---	---	1130	1080	1110	1710	1600	1650
26	---	---	---	---	---	---	1090	1060	1080	1720	1620	1660
27	---	---	---	---	---	---	1060	1020	1050	1790	1690	1740
28	---	---	---	---	---	---	1040	1010	1030	1720	1550	1620
29	---	---	---	---	---	---	1040	1010	1020	1650	1550	1600
30	---	---	---	---	---	---	1050	1020	1040	1750	1640	1700
31	---	---	---	---	---	---	---	---	---	1800	1740	1770
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
	JUNE			JULY			AUGUST			SEPTEMBER		
1	1830	1780	1810	2060	1990	2050	1840	1790	1820	1990	1920	1950
2	1850	1760	1810	2040	2000	2030	1820	1760	1790	2000	1850	1970
3	1840	1730	1770	2020	2000	2010	1770	1720	1740	2010	1880	1970
4	1870	1820	1850	2010	1980	2000	1740	1650	1710	2050	1960	2000
5	1870	1800	1840	2000	1970	1990	1710	1690	1700	2050	1950	2010
6	2060	1810	1940	2030	1990	2000	1690	1660	1670	1990	1880	1940
7	2190	1880	2040	2010	1980	1990	1680	1630	1660	1910	1860	1880
8	2270	2190	2230	1990	1940	1970	1690	1630	1650	1930	1820	1890
9	2290	2180	2260	1960	1890	1930	1670	1580	1640	---	1840	---
10	2270	2180	2210	1990	1900	1930	1640	1550	1570	1940	1820	1850
11	2230	2200	2220	2030	1990	2020	1580	1560	1570	---	---	---
12	2240	2220	2230	2030	1980	2000	1590	1560	1570	---	---	---
13	2250	2120	2200	2030	1920	1980	1560	1530	1540	---	---	---
14	2240	2150	2200	1980	1940	1960	1540	1520	1530	---	---	---
15	2280	2060	2230	1990	1940	1960	1530	1500	1520	---	---	---
16	2260	2100	2190	2000	1970	1990	1560	1510	1530	---	---	---
17	2100	1950	2000	2010	1970	1980	1710	1560	1610	---	1860	1880
18	2230	2040	2140	2010	1960	1990	1660	1600	1620	1900	1850	1880
19	2240	2180	2210	2000	1940	1960	1620	1590	1610	1910	1860	1880
20	2220	2140	2200	1970	1920	1950	1630	1620	1620	1900	1850	1870
21	2140	1850	1980	2000	1950	1970	1630	1600	1610	1880	1850	1870
22	2080	1880	1950	1980	1960	1970	1620	1600	1610	1880	1810	1830
23	2160	2080	2120	2020	1950	1980	1620	1610	1620	1860	1770	1800
24	2110	2000	2030	2030	2000	2010	1630	1590	1610	1850	1770	1810
25	2040	1990	2020	2000	1950	1980	1730	1630	1700	1830	1750	1780
26	2140	2010	2050	1980	1920	1950	1730	1070	1610	1830	1740	1780
27	2050	2000	2030	1960	1920	1940	1890	1230	1750	1830	1790	1810
28	2010	1950	1980	1920	1840	1880	1940	1880	1900	1800	1730	1760
29	2020	1990	2010	1840	1690	1760	1940	1850	1910	1730	1600	1670
30	2030	1970	2000	1780	1710	1750	2040	1860	1940	1680	1630	1660
31	---	---	---	1820	1760	1780	2030	1920	1950	---	---	---
MONTH	2290	1730	2060	2060	1690	1960	2040	1070	1670	---	---	---

## GREEN RIVER BASIN

## 09306200 PICEANCE CREEK BELOW RYAN GULCH, NEAR RIO BLANCO, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	---	---	---	5.1	3.8	4.4	---	---	---
2	---	---	---	---	---	---	4.1	.8	3.2	---	---	---
3	---	---	---	---	---	---	2.2	.0	1.0	---	---	---
4	---	---	---	---	---	---	6.1	1.3	3.5	---	---	---
5	---	---	---	---	---	---	6.6	2.8	4.7	---	---	---
6	---	---	---	---	---	---	6.6	2.4	4.6	---	---	---
7	---	---	---	---	---	---	5.7	2.4	4.3	---	---	---
8	---	---	5.9	.2	3.2	4.9	1.5	3.4	---	---	---	---
9	---	---	6.6	1.8	4.0	5.4	2.7	4.2	---	---	---	---
10	---	---	6.7	.4	3.7	5.3	3.2	4.5	---	---	---	---
11	---	---	7.1	3.7	5.4	6.4	3.8	5.1	---	---	---	---
12	---	---	7.3	3.7	5.5	4.9	2.3	3.5	---	---	---	---
13	---	---	8.0	2.3	5.2	4.1	1.2	2.8	---	---	---	---
14	---	---	7.4	4.6	5.9	5.1	1.7	3.2	---	---	---	---
15	---	---	6.1	1.7	3.9	5.9	1.7	3.5	---	---	---	---
16	---	---	4.8	.0	2.3	6.1	2.8	4.4	---	---	---	---
17	---	---	7.1	2.9	4.9	5.9	3.6	4.5	---	---	---	---
18	---	---	7.0	4.2	5.5	5.8	4.0	5.0	---	---	---	---
19	---	---	8.2	3.2	5.8	4.9	1.5	3.1	---	---	---	---
20	---	---	7.9	3.1	5.6	3.1	.0	1.6	---	---	---	---
21	---	---	7.0	2.7	5.1	3.0	.8	2.0	---	---	---	---
22	---	---	7.3	2.7	5.1	3.7	.6	1.7	---	---	---	---
23	---	---	7.1	2.1	4.8	.9	.0	.3	---	---	---	---
24	---	---	7.1	2.4	4.8	.9	.0	.2	---	---	---	---
25	---	---	6.7	2.1	4.5	---	---	---	---	---	---	---
26	---	---	6.0	1.8	4.3	---	---	---	---	---	---	---
27	---	---	7.9	4.4	5.8	---	---	---	---	---	---	---
28	---	---	7.5	3.5	5.2	---	---	---	---	---	---	---
29	---	---	6.5	1.9	4.2	---	---	---	---	---	---	---
30	---	---	7.2	2.5	4.8	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	8.5	.5	4.6	11.0	5.7	8.6
2	---	---	---	---	---	---	7.4	2.2	4.8	9.8	5.2	7.8
3	---	---	---	---	---	---	9.2	2.0	5.8	12.2	5.4	8.6
4	---	---	---	---	---	---	6.9	1.5	4.3	11.8	6.6	9.3
5	---	---	---	---	---	---	8.5	2.1	5.1	13.7	6.0	9.9
6	---	---	---	---	---	---	9.1	1.2	5.5	13.5	6.9	10.3
7	---	---	---	---	---	---	9.9	3.5	6.8	12.9	7.6	10.4
8	---	---	---	---	---	---	11.6	4.1	8.0	15.1	7.7	11.3
9	---	---	---	---	---	---	10.7	4.6	7.7	14.2	8.5	11.7
10	---	---	---	---	---	---	8.2	4.6	6.4	14.1	7.0	10.8
11	---	---	---	---	---	---	6.4	3.4	5.2	16.5	6.7	11.6
12	---	---	---	---	---	---	6.2	1.9	4.2	17.8	8.3	13.1
13	---	---	7.1	3.8	5.5	---	---	---	15.7	9.4	12.9	---
14	---	---	6.2	3.6	5.0	---	---	---	15.6	8.8	12.6	---
15	---	---	8.0	2.6	5.1	---	---	---	19.2	8.6	14.0	---
16	---	---	6.7	2.0	4.0	---	---	---	18.7	11.3	15.1	---
17	---	---	3.6	1.0	2.5	---	---	---	16.9	10.8	14.1	---
18	---	---	4.4	.4	2.0	9.1	4.0	6.5	16.9	8.6	12.5	---
19	---	---	5.4	.0	2.1	8.2	3.6	5.8	18.1	8.3	12.9	---
20	---	---	7.2	.0	3.3	6.2	3.9	5.2	17.5	8.5	12.9	---
21	---	---	8.2	.7	4.4	10.1	3.0	6.3	17.9	6.6	12.4	---
22	---	---	6.6	1.9	4.2	10.2	3.3	7.0	17.2	8.9	13.1	---
23	---	---	5.6	1.3	3.2	12.6	4.8	8.5	13.6	9.5	11.6	---
24	---	---	4.6	.0	1.6	12.4	7.0	10.0	12.6	8.5	10.5	---
25	---	---	4.2	.0	1.5	12.7	6.7	9.8	12.9	8.3	10.4	---
26	---	---	6.4	.0	2.6	11.8	5.7	8.9	14.6	7.8	11.3	---
27	---	---	6.6	.0	3.5	12.2	7.4	9.5	16.9	8.6	12.3	---
28	---	---	8.5	1.2	5.0	7.8	3.2	5.2	14.5	9.3	11.9	---
29	---	---	5.6	2.4	3.9	8.7	1.0	5.0	18.6	7.9	13.2	---
30	---	---	7.0	1.6	4.3	11.5	5.2	8.4	16.2	10.4	13.0	---
31	---	---	6.9	1.7	4.5	---	---	---	17.8	8.1	12.9	---
MONTH	---	---	---	---	---	---	---	---	19.2	5.2	11.7	---

**09306200 PICEANCE CREEK BELOW RYAN GULCH, NEAR RIO BLANCO, CO--Continued**

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	19.4	7.9	13.4	---	---	---	19.9	12.0	16.4	20.2	10.7	14.9
2	20.6	8.2	14.3	20.9	11.4	16.3	20.6	12.6	16.4	20.0	11.4	15.5
3	21.1	9.5	15.0	20.6	11.4	16.3	21.6	12.4	16.9	17.9	10.1	14.3
4	18.8	9.8	14.5	21.5	12.6	16.9	18.4	12.5	15.5	20.3	10.7	15.1
5	21.2	9.1	14.9	23.2	14.0	17.6	19.7	9.4	14.5	17.9	12.7	14.7
6	20.4	8.7	14.3	23.7	12.6	17.8	17.7	10.4	14.6	15.8	12.2	13.9
7	21.8	8.3	14.7	22.3	12.1	17.5	20.4	9.5	14.9	18.6	9.5	13.7
8	23.5	9.2	15.6	20.9	13.2	16.7	21.3	10.1	15.9	16.6	9.9	13.6
9	22.0	10.5	16.0	20.1	13.0	16.2	21.3	11.5	16.5	19.6	10.2	14.5
10	20.7	10.8	15.1	21.7	11.7	16.9	21.1	11.0	16.1	18.0	9.5	13.8
11	17.7	9.4	13.3	23.9	11.9	17.8	21.3	10.7	16.1	16.5	11.7	14.0
12	19.1	9.4	13.8	23.0	11.2	17.1	21.5	10.8	15.9	16.3	12.5	14.0
13	17.1	10.2	13.9	24.5	12.6	16.7	19.5	11.2	15.6	16.5	11.7	13.9
14	19.5	11.0	14.4	24.3	11.5	17.7	20.2	11.3	15.7	14.8	11.6	13.3
15	16.2	11.7	13.6	19.3	11.9	15.4	19.5	12.0	16.0	15.8	10.5	13.3
16	19.0	9.7	14.2	22.7	12.8	16.9	21.6	11.9	16.6	13.3	9.6	11.8
17	18.6	8.2	13.4	21.1	13.4	17.4	20.3	11.2	15.9	13.3	8.6	10.8
18	19.0	8.1	13.1	22.6	13.3	17.6	20.2	13.5	16.3	11.8	7.8	9.8
19	20.5	7.9	13.4	22.1	12.7	17.4	19.2	12.2	15.4	12.6	6.6	9.8
20	18.1	8.2	12.4	21.7	11.9	17.1	18.8	11.6	15.5	15.7	8.7	12.0
21	18.7	10.4	14.2	23.3	11.1	17.0	18.3	13.1	15.9	14.5	8.0	11.8
22	21.4	10.9	15.5	22.6	11.1	16.9	16.6	11.7	14.5	15.2	9.7	12.7
23	19.6	9.6	14.6	22.5	11.1	16.8	20.6	10.3	15.2	15.4	9.9	12.8
24	19.6	9.0	14.1	22.7	10.9	16.8	20.8	11.1	16.0	16.7	10.7	13.4
25	19.2	9.0	14.2	19.6	11.8	15.5	21.2	11.4	16.1	13.9	10.1	11.6
26	19.6	10.9	15.2	22.2	11.2	16.2	17.4	12.4	14.6	10.6	6.9	8.9
27	17.3	12.2	15.0	21.9	11.4	16.5	19.4	12.3	15.7	12.3	5.9	9.1
28	19.0	10.8	14.9	18.6	13.5	15.9	21.2	12.6	16.5	14.1	6.3	10.3
29	21.9	10.1	15.9	19.9	13.8	16.5	21.8	10.8	15.8	15.0	7.2	11.2
30	19.1	10.9	15.0	21.7	12.6	17.3	21.5	10.3	15.5	15.4	7.7	11.7
31	---	---	---	21.1	12.3	17.1	20.4	10.4	15.2	---	---	---
MONTH	23.5	7.9	14.4	---	---	---	21.8	9.4	15.7	20.3	5.9	12.7

## GREEN RIVER BASIN

## 09306222 PICEANCE CREEK AT WHITE RIVER, CO

LOCATION.--Lat 40°04'14", long 108°14'09", in SE<sup>1/4</sup>SE<sup>1/4</sup> sec.2, T.1 N., R.97 W., Rio Blanco County, Hydrologic Unit 14050006, on downstream side of box culvert on county highway, 1.0 mi southwest of White River City, 1.3 mi upstream from mouth, and 17 mi west of Meeker.

DRAINAGE AREA.--652 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1964 to September 1966, October 1970 to current year.

REVISED RECORDS.--WDR CO-82-3: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 5,730 ft above sea level, from topographic map. Oct. 1, 1964 to Sept. 30, 1966, Oct. 1, 1970 to July 12, 1974, at several sites 0.1 mi upstream at different datums, and Oct. 1, 1987 to Nov. 18, 1994, at site 1.0 mi downstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 5,500 acres upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	30	36	e22	e23	45	66	81	6.4	6.2	33	13
2	35	28	35	e21	e18	45	66	79	3.2	6.6	36	13
3	34	28	35	e21	e16	45	65	79	3.3	7.3	36	7.6
4	36	28	35	e24	e18	48	65	79	3.9	7.3	36	9.0
5	37	29	35	e23	e21	48	65	79	3.8	7.5	37	7.7
6	35	24	36	e21	e22	43	62	78	3.8	8.0	37	8.4
7	35	24	36	e21	e25	40	63	78	2.4	7.7	31	8.0
8	34	23	36	e23	e27	40	65	77	2.5	7.5	27	7.5
9	31	23	36	e24	e28	44	65	76	2.7	8.3	27	7.4
10	30	25	36	e26	e28	51	65	76	2.7	8.5	29	7.1
11	29	26	37	e26	e27	52	66	70	2.6	8.1	30	7.5
12	30	27	37	e24	e23	56	75	62	2.7	8.3	29	9.3
13	29	27	35	e24	e20	64	73	63	2.5	8.6	29	9.1
14	30	27	34	e25	e22	67	70	55	2.7	9.0	26	11
15	30	30	35	e26	e20	63	72	41	2.8	9.0	27	12
16	30	32	34	e26	e21	64	77	31	2.8	9.5	27	12
17	30	32	32	e24	e22	65	81	23	2.9	9.4	23	18
18	28	32	31	e21	e20	64	82	14	3.1	9.4	21	20
19	26	32	e26	e18	e18	60	85	13	2.9	9.3	20	21
20	26	31	e25	e19	16	57	82	11	2.9	9.8	19	20
21	27	30	e27	e20	29	57	74	9.4	5.2	9.5	18	23
22	30	32	e24	e19	36	64	71	6.7	5.3	11	19	25
23	31	32	e22	e17	61	95	66	5.9	4.1	17	20	26
24	32	32	e21	e16	61	84	64	5.9	3.9	19	20	26
25	33	32	e20	e16	59	67	66	6.8	4.0	16	18	23
26	33	32	e19	e13	57	62	72	6.8	4.6	16	15	23
27	32	33	e20	e13	54	62	78	5.7	5.4	13	18	23
28	32	29	e21	e15	49	61	87	7.9	5.3	15	16	24
29	32	29	e22	e17	48	66	95	7.0	5.4	26	14	26
30	32	35	e23	e21	---	68	88	6.5	6.4	38	14	28
31	34	---	e23	e22	---	65	---	5.1	---	31	13	---
TOTAL	981	874	924	648	889	1812	2171	1238.7	112.2	376.8	765	475.6
MEAN	31.6	29.1	29.8	20.9	30.7	58.5	72.4	40.0	3.74	12.2	24.7	15.9
MAX	38	35	37	26	61	95	95	81	6.4	38	37	28
MIN	26	23	19	13	16	40	62	5.1	2.4	6.2	13	7.1
AC-FT	1950	1730	1830	1290	1760	3590	4310	2460	223	747	1520	943

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1996, BY WATER YEAR (WY)

MEAN	27.9	33.5	29.3	26.4	30.7	46.0	56.4	75.9	39.2	28.1	33.4	24.3
MAX	86.1	76.9	72.0	64.9	86.6	123	245	343	247	125	109	75.4
(WY)	1986	1986	1986	1986	1986	1986	1986	1985	1983	1984	1984	1984
MIN	1.60	10.1	13.5	11.4	16.3	17.2	3.54	2.27	1.40	1.56	1.67	2.03
(WY)	1965	1965	1991	1973	1973	1972	1972	1972	1994	1972	1990	1966

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1965 - 1996
ANNUAL TOTAL	15804.6	11267.3	
ANNUAL MEAN	43.3	30.8	37.6
HIGHEST ANNUAL MEAN			109
LOWEST ANNUAL MEAN			12.5
HIGHEST DAILY MEAN	a260	Jun 2	1985
LOWEST DAILY MEAN	5.8	Apr 14	1990
ANNUAL SEVEN-DAY MINIMUM	6.6	Apr 13	May 28 1983
INSTANTANEOUS PEAK FLOW			c .50 Jul 21 1966
INSTANTANEOUS PEAK STAGE			d .84 Jul 30 1971
ANNUAL RUNOFF (AC-FT)	31350	22350	d628 Sep 7 1978
10 PERCENT EXCEEDS	98	66	7.04 Sep 7 1978
50 PERCENT EXCEEDS	30	26	25
90 PERCENT EXCEEDS	15	6.6	3.9

e-Estimated.

a-Estimated during period of no gage-height record.

b-Also occurred Apr 29.

c-Also occurred Jul 22, 1966.

d-On basis of slope-area measurement of peak flow.

**09306222 PICEANCE CREEK AT WHITE RIVER, CO--Continued**  
**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--December 1970 to July 1986, March 1987, March 1990 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 1971 to June 1974, May 1975 to September 1983.

WATER TEMPERATURES: January 1971 to September 1974, May 1975 to September 1983.

SUSPENDED-SEDIMENT DISCHARGE: March 1974 to September 1983.

INSTRUMENTATION.--Water-quality monitor May 1975 to September 1983. Pumping sediment sampler March 1974 to September 1983.

REMARKS.--Unpublished maximum and minimum specific conductance data for period of daily record available in district office.

The maximum extreme specific conductance value of 10,000 microsiemens represents a value of 10,000 microsiemens or higher due to instrument limitations.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 10,000 microsiemens, June 18, 1981; minimum, 460 microsiemens, Feb. 28 and Mar. 2, 1983.

WATER TEMPERATURES: Maximum, 32.0°C, July 14, 1978; minimum, 0.0°C, many days during winter months.

SEDIMENT CONCENTRATIONS: Maximum daily, 25,000 mg/L, estimated Sept. 7, 1978; 4 mg/L, Oct. 2, 1977.

SEDIMENT LOADS: Maximum daily, 6,095 tons, estimated, May 28, 1983; minimum daily, 0.10 ton, June 22, 1978.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT- ANCE PER SECOND	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L)	CALCIUM DIS- SOLVED AS CACO3)	MAGNE- SIUM, DIS- SOLVED (MG/L AS CA)	SODIUM, DIS- SOLVED (MG/L AS NA)
NOV 07...	1440	24	2080	8.6	7.0	11.4	480	66	76	300
MAR 12...	1410	58	1620	8.6	9.0	9.9	440	68	65	210
MAY 15...	1155	38	1660	8.4	16.0	9.1	420	63	62	230
AUG 27...	1015	21	2190	8.7	17.0	9.8	500	52	90	340
<hr/>										
DATE	RATIO	SODIUM AD- SORP- TION SOLVED (MG/L AS K)	POTAS- SIUM, DIS- SOLVED (MG/L AS CACO3)	ALKA- LINITY LAB DIS- SOLVED (MG/L AS SO4)	SULFATE DIS- SOLVED (MG/L AS CL)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDs, SUM OF CONSTI- TUENTS, DIS- SOLVED (TONS PER AC-FT)	SOLIDs, DIS- SOLVED (TONS PER DAY)
NOV 07...	6	3.0	614	380	38	0.9	13	1250	1.70	79.2
MAR 12...	4	3.2	531	320	26	0.8	15	1030	1.40	161
MAY 15...	5	2.6	542	330	32	0.9	13	1060	1.45	109
AUG 27...	7	3.6	717	470	38	1.0	8.0	1440	1.95	81.4
<hr/>										
DATE		NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)		
MAY 15...	<0.01	0.46	0.03	0.3	0.05	0.03	5.0			
AUG 27...	<0.01	<0.05	<0.015	0.4	<0.01	<0.01	6.8			

## GREEN RIVER BASIN

**09306222 PICEANCE CREEK AT WHITE RIVER, CO--Continued**

## WATER-QUALITY DATA, OCTOBER 1995 TO SEPTEMBER 1996

DATE	ARSENIC SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	COBALT, DIS- SOLVED (UG/L AS CO)	IRON, DIS- SOLVED (UG/L AS FE)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 07...	--	--	270	--	--	--	--	--	--	2500	--
MAY 15...	2	86	230	<1	4	22	5	7	<1	2000	<3
AUG 27...	3	92	330	<1	<9	34	<3	8	1	2500	<9

## MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)		
OCT 10...	1534	28	1910	12.5	JUN 07...	1342	2.2	3400	25.5		
JAN 24...	1225	15	1380	0.0	JUL 10...	1549	8.3	2850	28.5		
APR 17...	1335	77	1380	9.0	AUG 29...	1355	13	2310	20.5		

## SUSPENDED SEDIMENT DISCHARGE, WATER YEARS OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)		
NOV 07...	1440	24	442	28	MAY 15...	1155	38	412	42		
MAR 12...	1410	58	871	136	AUG 27...	1015	21	15	0.82		

## GREEN RIVER BASIN

401

**09306242 CORRAL GULCH NEAR RANGELY, CO**

LOCATION.--Lat 39°55'13", long 108°28'20", in SE<sup>1/4</sup>NW<sup>1/4</sup> sec.35, T.1 S., R.99 W., Rio Blanco County, Hydrologic Unit 14050006, on left bank 5 ft downstream from Boxelder Creek, and 3.5 mi upstream from confluence with Stake Springs Draw, and 21 mi southeast of Rangely.

DRAINAGE AREA.--31.6 mi<sup>2</sup>.**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--March 1974 to current year.

GAGE.--Water-stage recorder. Concrete control since July 20, 1974. Elevation of gage is 6,580 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. No diversions upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e1.1	.85	.82	.58	.58	.53	.53	.55	e1.8	1.8	1.3	.77
2	e1.1	.77	.79	.58	.57	.53	.53	.53	e1.9	1.8	1.3	.79
3	e1.2	.83	.77	.56	.58	.54	.55	.52	e1.9	1.8	1.2	.80
4	e1.3	.78	.83	.55	.58	.59	.55	.52	e2.0	1.7	1.2	.79
5	e1.1	.87	.81	.55	.53	.58	.55	.52	e2.0	1.6	1.2	.85
6	e1.0	.86	.79	.55	.50	.55	.54	.52	e2.1	1.7	1.2	.89
7	e.99	.88	.78	.55	.51	.54	.56	.51	e2.1	1.6	1.1	.84
8	e1.0	.89	.66	.55	.51	.58	.54	.51	e2.0	1.6	1.1	.81
9	e.98	.94	.73	.55	.52	.84	.55	.53	e1.9	1.6	1.1	.82
10	e1.0	.82	.76	.55	.52	1.0	.56	.52	e1.9	1.6	1.1	.78
11	1.0	.76	.79	.55	.53	1.3	.63	.51	e2.0	1.5	1.0	.78
12	.98	.87	.80	.55	.53	.84	.58	.50	e2.0	1.6	.97	.82
13	.98	.88	.79	.55	.54	.55	.58	.49	e2.1	1.6	.92	.81
14	1.0	.86	.67	.55	.53	.53	.60	.50	e2.1	1.5	.94	.82
15	.98	.86	.70	.55	.53	.54	.57	.50	2.2	1.5	.98	.79
16	.97	.86	.76	.55	.54	.53	.57	e.56	2.2	1.4	.95	.80
17	.97	.86	.70	.55	.68	.53	.59	e.56	2.2	1.5	.97	.81
18	.96	.85	.60	.55	.78	.53	.58	e.54	2.1	1.4	.99	.82
19	.88	.86	.59	.55	.67	.52	.56	e.56	2.1	1.3	.95	.86
20	.99	.85	.59	.55	.66	.53	.57	e.58	2.2	1.3	.93	.84
21	1.0	.86	.59	.55	.79	.53	.56	e.60	2.4	1.2	.92	.83
22	1.0	.85	.60	.54	.84	.72	.53	e.62	2.3	1.2	.92	.81
23	.93	.84	.56	.53	.63	.55	.53	e.66	2.2	1.2	.92	.82
24	1.1	.83	.56	.55	.54	.54	.54	e.70	2.0	1.2	.94	.82
25	1.1	.86	.57	.55	.53	.54	.54	e.76	2.0	1.2	.92	.81
26	1.0	.87	.58	.55	.53	.54	.54	e.80	1.9	1.2	.90	.86
27	1.0	.73	.58	.55	.53	.54	.54	e.90	1.9	1.2	.79	.89
28	1.0	.70	.58	.56	.52	.53	.55	e1.1	1.9	1.2	.78	.91
29	.99	.80	.59	.56	.52	.56	.55	e1.4	1.9	1.2	.77	.88
30	.97	.81	.58	.58	---	.53	.56	e1.6	1.9	1.2	.76	.89
31	1.0	--	.58	.58	---	.53	---	e1.7	---	1.2	.77	--
TOTAL	31.57	25.15	21.10	17.17	16.82	18.79	16.73	21.37	61.2	44.6	30.79	24.81
MEAN	1.02	.84	.68	.55	.58	.61	.56	.69	2.04	1.44	.99	.83
MAX	1.3	.94	.83	.58	.84	1.3	.63	1.7	2.4	1.8	1.3	.91
MIN	.88	.70	.56	.53	.50	.52	.53	.49	1.8	1.2	.76	.77
AC-FT	63	50	42	34	33	37	33	42	121	88	61	49

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1996, BY WATER YEAR (WY)

MEAN	1.07	.86	.80	.76	.82	1.15	2.39	7.26	4.65	1.97	1.52	1.31
MAX	2.88	1.99	2.07	2.40	2.22	4.62	12.8	41.7	33.4	8.98	5.56	3.39
(WY)	1979	1984	1979	1979	1979	1979	1985	1984	1983	1984	1984	1978
MIN	.30	.25	.27	.30	.30	.31	.22	.15	.094	.17	.29	.32
(WY)	1991	1993	1992	1977	1993	1977	1992	1992	1992	1992	1977	1991

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1974 - 1996

ANNUAL TOTAL	768.54		330.10									
ANNUAL MEAN		2.11		.90						2.11		
HIGHEST ANNUAL MEAN										7.75		1984
LOWEST ANNUAL MEAN										.27		1992
HIGHEST DAILY MEAN	a14		Jun 2		2.4		Jun 21			207		Jun 1 1983
LOWEST DAILY MEAN		.28	Feb 13		.49		May 13			b .06		Apr 10 1974
ANNUAL SEVEN-DAY MINIMUM		.31	Feb 10		.51		May 9			.07		Apr 10 1974
INSTANTANEOUS PEAK FLOW					4.5		Mar 11		c 1780			Aug 18 1984
INSTANTANEOUS PEAK STAGE					1.85		Mar 11			6.12		Aug 18 1984
ANNUAL RUNOFF (AC-FT)	1520				655				1530			
10 PERCENT EXCEEDS		7.2			1.6					4.0		
50 PERCENT EXCEEDS		.88			.79					.80		
90 PERCENT EXCEEDS		.41			.53					.31		

e-Estimated.

a-Also occurred Jun 3-4.

b-Also occurred Apr 11-14, 1974.

c-From rating curve extended above 70 ft<sup>3</sup>/s, on basis of slope-area measurements at gage heights, 3.89 ft, 4.08 ft, and 6.12 ft.

## GREEN RIVER BASIN

## 09306242 CORRAL GULCH NEAR RANGELY, CO--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1974 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1975 to September 1989.

WATER TEMPERATURE: January 1975 to September 1989.

SUSPENDED-SEDIMENT DISCHARGE: October 1974 to September 1985.

INSTRUMENTATION.--Water-quality monitor October 1974 to August 1989. Pumping sediment sampler October 1974 to September 1985.

REMARKS.--Unpublished maximum and minimum specific conductance data for period of daily record available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 3,000 microsiemens, July 17, 1976; minimum, 271 microsiemens, Feb. 18, 1980.

WATER TEMPERATURES: Maximum, 29.0°C, Aug. 5, 1979; minimum, 0.0°C, on several days during winter months some years.

SEDIMENT CONCENTRATIONS: Maximum daily, 35,800 mg/L, Aug. 2, 1982; minimum daily, 2 mg/L, May 24, 1981.

SEDIMENT LOADS: Maximum daily, 43,600 tons, August 18, 1984; minimum daily, 0.00 ton, on many days during 1981.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
NOV 07...	1110	0.90	1440	7.9	8.5	12.1	550	100	73	110
JUN 14...	1050	2.2	1280	8.2	18.0	8.7	510	93	66	99
AUG 26...	1415	0.98	1330	7.9	15.5	10.8	500	82	70	110

DATE	RATIO	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB SOLVED (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, (TONS DIS- SOLVED (MG/L AS AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
NOV 07...	2	1.2	372	370	13	0.3	20	913	1.24	2.22
JUN 14...	2	1.0	348	340	13	0.4	20	845	1.15	4.93
AUG 26...	2	1.6	331	360	12	0.3	20	858	1.17	2.27

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + DIS- SOLVED (MG/L AS N)	PHOS- PHORUS ORGANIC DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHOPHOSPHATE DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	BORON, DIS- SOLVED (UG/L AS B)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
NOV 07...	--	--	--	--	--	--	--	120	2300
JUN 14...	<0.01	0.43	<0.015	0.2	<0.10	<0.01	6.6	100	2000
AUG 26...	0.01	0.26	<0.015	0.3	0.03	0.01	6.6	110	2100

## MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)
OCT 10...	1410	1.0	1380	12.5	APR 17...	1055	0.59	1510	9.5
JAN 22...	1500	0.52	1540	6.5	MAY 16...	0957	0.54	1470	11.5
MAR 12...	1045	0.59	1480	7.0	JUL 10...	1302	1.6	1270	19.5

**09306242 CORRAL GULCH NEAR RANGELY, CO--Continued**

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-	SEDI-	DATE	DIS-	SEDI-		
		CHARGE, INST. CUBIC FEET	MENT, SEDIMENT, CHARGE, SUS- PENDED (MG/L)		CHARGE, INST. CUBIC FEET	MENT, SEDIMENT, CHARGE, SUS- PENDED (MG/L)		
SECOND	(T/DAY)	SECOND	(T/DAY)					
NOV 07...	1110	0.90	107	0.26	AUG 26...	0.98	31	0.08
JUN 14...	1050	2.2	18	0.10				

## GREEN RIVER BASIN

## 09306255 YELLOW CREEK NEAR WHITE RIVER, CO

LOCATION.--Lat 40°10'07", long 108°24'02", in NE<sup>1/4</sup>SW<sup>1/4</sup> sec.4, T.2 N., R.98 W., Rio Blanco County, Hydrologic Unit 14050006, on left bank 160 ft downstream from bridge on State Highway 64, 0.3 mi upstream from mouth, and 10.0 mi northwest of White River City.

DRAINAGE AREA.--262 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1972 to September 1982, May 1988 to current year.

GAGE.--Water-stage recorder with satellite telemetry, and v-notch concrete control. Elevation of gage is 5,535 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 300 acres.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	1.9	1.9	e1.4	e1.7	e2.1	2.6	2.8	2.2	1.6	1.2	1.1
2	1.8	1.7	1.9	e1.3	e1.7	e2.1	2.6	2.7	2.2	1.6	1.3	1.1
3	1.8	1.9	2.0	e1.5	e1.7	e2.3	2.8	2.7	2.1	1.7	1.3	1.1
4	2.5	1.7	2.0	e1.4	e1.6	e2.3	3.1	2.7	2.1	1.7	1.3	1.1
5	2.0	1.7	1.9	e1.4	e1.6	e2.3	3.1	2.7	2.0	1.6	1.3	1.2
6	1.9	1.6	e1.8	e1.4	e1.5	e2.4	3.2	2.6	1.9	1.6	1.3	1.4
7	1.8	1.7	e1.7	e1.4	e1.5	e2.5	3.1	2.5	1.8	1.5	1.3	1.4
8	1.8	1.6	e1.7	e1.4	e1.6	e2.7	3.0	2.4	1.8	1.5	1.3	1.3
9	1.9	1.7	e1.8	e1.4	e1.6	e3.0	2.8	2.8	1.8	e1.5	1.3	1.2
10	1.7	1.9	e1.8	e1.5	e1.6	e3.4	3.1	2.8	1.7	e1.4	1.2	1.2
11	1.8	1.6	e1.8	e1.5	e1.7	e3.1	4.5	2.7	1.7	e1.3	1.2	1.3
12	1.7	1.9	e1.8	e1.5	e1.7	e3.1	3.3	2.7	1.9	1.3	1.2	1.5
13	1.7	1.7	e1.7	e1.4	e1.6	e3.0	5.0	2.6	1.9	1.3	1.2	1.6
14	1.8	1.7	e1.6	e1.4	e1.7	e2.9	3.6	2.6	1.8	1.3	1.2	1.6
15	1.8	1.7	e1.8	e1.5	e1.9	e2.9	3.2	2.5	1.9	1.3	1.2	1.5
16	1.8	1.7	e1.7	e1.5	e2.4	e2.9	2.8	2.3	1.8	1.3	1.2	1.5
17	1.7	1.7	e1.6	e1.4	e2.8	e2.7	2.7	2.2	1.7	1.6	1.2	1.9
18	1.7	1.7	e1.4	e1.3	e2.6	e2.5	3.1	2.2	1.6	1.6	1.3	1.6
19	1.7	1.8	e1.4	e1.3	e2.5	e2.6	3.0	2.3	1.6	1.4	1.4	1.6
20	1.7	1.8	e1.5	1.3	e2.8	e2.5	3.0	2.3	1.7	1.3	1.4	1.6
21	1.8	1.7	e1.4	1.4	e2.7	e2.6	3.1	2.3	2.3	1.2	1.3	1.6
22	2.2	1.8	e1.4	1.5	e2.5	2.7	2.8	2.4	2.1	1.2	1.3	1.6
23	2.1	1.7	e1.4	e1.6	e2.3	2.7	2.8	2.8	1.8	1.2	1.3	1.7
24	1.9	1.8	e1.5	e1.6	e2.2	2.7	2.8	2.8	1.7	1.2	1.4	1.8
25	1.9	1.8	e1.5	e1.6	e2.1	2.4	2.8	3.1	1.6	1.2	1.4	1.8
26	2.0	1.8	e1.5	e1.6	e2.0	2.5	2.8	2.6	1.6	1.3	1.4	1.8
27	1.9	2.0	e1.5	e1.6	e2.1	2.4	2.6	2.5	1.7	1.4	1.3	1.9
28	1.8	2.0	e1.5	e1.6	e2.1	2.5	2.6	3.1	1.8	1.2	1.2	1.9
29	1.8	2.1	e1.5	e1.7	e2.0	2.6	2.8	2.7	1.7	1.5	1.1	1.9
30	1.8	2.0	e1.6	e1.7	--	2.6	2.9	2.4	1.7	1.4	1.1	1.9
31	1.8	--	e1.5	e1.7	--	2.7	--	2.3	--	1.3	1.1	--
TOTAL	57.7	53.4	51.1	45.8	57.8	81.7	91.6	80.1	55.2	43.5	39.2	45.7
MEAN	1.86	1.78	1.65	1.48	1.99	2.64	3.05	2.58	1.84	1.40	1.26	1.52
MAX	2.5	2.1	2.0	1.7	2.8	3.4	5.0	3.1	2.3	1.7	1.4	1.9
MIN	1.7	1.6	1.4	1.3	1.5	2.1	2.6	2.2	1.6	1.2	1.1	1.1
AC-FT	114	106	101	91	115	162	182	159	109	86	78	91

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1996, BY WATER YEAR (WY)

MEAN	1.98	2.27	2.00	1.89	3.96	3.61	2.64	4.09	3.07	2.76	1.92	2.74
MAX	5.30	5.94	4.76	4.63	12.7	8.92	5.24	24.1	19.9	18.5	6.16	17.1
(WY)	1989	1989	1989	1990	1980	1993	1989	1985	1985	1985	1988	1978
MIN	.50	.78	.15	.008	.22	1.64	1.37	1.03	.68	.34	.30	.80
(WY)	1979	1978	1979	1979	1979	1982	1978	1978	1977	1976	1978	1976

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1973 - 1996

ANNUAL TOTAL	768.4	702.8										
ANNUAL MEAN	2.11	1.92										
HIGHEST ANNUAL MEAN												
LOWEST ANNUAL MEAN												
HIGHEST DAILY MEAN	8.3	Mar 28	5.0	Apr 13								
LOWEST DAILY MEAN	1.2	Aug 8	a1.1	Aug 29								
ANNUAL SEVEN-DAY MINIMUM	1.3	Aug 3	c1.1	Aug 29								
INSTANTANEOUS PEAK FLOW			f8.3	Apr 13								
INSTANTANEOUS PEAK STAGE			5.48	Apr 13								
ANNUAL RUNOFF (AC-FT)	1520		1390									
10 PERCENT EXCEEDS	2.7		2.8									
50 PERCENT EXCEEDS	2.0		1.7									
90 PERCENT EXCEEDS	1.5		1.3									

e-Estimated.

a-Also occurred Aug 30 to Sep 4.

b-Also occurred Sep 12-16, 1978, and Dec 15, 1978 to Jan 14, 1979.

c-May have been higher during period of no gage-height record, Feb 4 to Mar 21.

d-On basis of contracted-opening, and flow-over-road measurement of peak flow.

f-Maximum gage height, 5.99 ft, Dec 25, backwater from ice.

## GREEN RIVER BASIN

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## 09306255 YELLOW CREEK NEAR WHITE RIVER, CO--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1974 to September 1982, March 1988 to current year.

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1975 to September 1982.

WATER TEMPERATURE: April 1975 to September 1982.

SUSPENDED-SEDIMENT DISCHARGE: April 1974 to September 1982.

INSTRUMENTATION.--Automatic pumping sediment sampler April 1974 to September 1982. Water-quality monitor April 1975 to September 1982.

REMARKS.--Unpublished maximum and minimum specific conductance data for the period of daily record are available in the district office.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum 5,790 microsiemens, Sept. 17, 1978; minimum, 457 microsiemens, July 21, 1979.

WATER TEMPERATURES: Maximum 35.0°C, July 25, 1978; minimum, 0.0°C, on many days during the winter period.

SEDIMENT CONCENTRATIONS: Maximum daily, 24,000 mg/L, Sept. 07, 1978; minimum daily, no flow several days during Sept. 1978, many days during 1979.

SEDIMENT LOADS: Maximum daily, 290,000 tons, Sept. 07, 1978; minimum daily, no flow several days during Sept. 1978, many days during 1979.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-	CHARGE,	SPE-	PH	TEMPER-	OXYGEN,	HARD-	CALCIUM	MAGNE-	SODIUM,		
		INST.	CIFIC	CON-		FEET	DUCT-	(STAND-	DIS-	SOLVED	DIS-		
		CUBIC	PER	ANCE	ARD	WATER	SOLVED	(MG/L)	AS	(MG/L)	(MG/L)		
		FEET	SECOND	(US/CM)	UNITS	(DEG C)	(MG/L)	CACO3)	AS CA)	AS MG)	AS NA)		
NOV 07...	0910	1.7		3260		8.4		3.5	--	720	55	140	580
MAR 12...	1530	3.4		2700		8.6		9.0	9.8	590	55	110	460
JUN 14...	1330	1.7		3520		8.9		23.0	--	630	20	140	660
AUG 27...	0815	1.7		3290		8.7		16.0	9.6	540	34	110	610
		SODIUM	POTAS-	ALKA-	SULFATE	CHLO-	FLUO-	SILICA,	SOLIDS,	SOLIDS,	SOLIDS,		
		AD-	SIUM,	LINITY	DIS-	RIDE,	RIDE,	DIS-	SUM OF	DIS-	DIS-		
		SORP-	DIS-	LAB	DIS-	DIS-	DIS-	SOLVED	CONSTI-	SOLVED	SOLVED		
		TION	SOLVED	(MG/L	SOLVED	SOLVED	SOLVED	(MG/L	TUENTS,	(TONS	(TONS		
		RATIO	(MG/L	AS	(MG/L	(MG/L	(MG/L	AS	DIS-	PER	PER		
			AS K)	CACO3)	AS SO4)	AS CL)	AS F)	SIO2)	SOLVED	(MG/L)	AC-FT)		
NOV 07...	9	3.1	1060		750		91		1.5	11	2270	3.09	10.6
MAR 12...	8	3.8	880		580		73		1.3	13	1820	2.48	16.6
JUN 14...	11	2.8	1170		790		110		1.9	4.8	2440	3.32	11.5
AUG 27...	11	3.7	1170		580		110		1.9	12	2180	2.96	10.0
		NITRO-	NITRO-	NITRO-	NITRO-	PHOS-	PHORUS	CARBON,					
		GEN,	GEN,	GEN,	GEN, AM-	PHORUS	ORTHO,	ORGANIC					
		NITRITE	NO2+NO3	AMMONIA	MONIA +	DIS-	DIS-	DIS-					
		DIS-	DIS-	DIS-	ORGANIC	SOLVED	SOLVED	SOLVED					
		SOLVED	SOLVED	SOLVED	DIS.	(MG/L	(MG/L	(MG/L					
		(MG/L	(MG/L	(MG/L	AS N)	AS N)	AS N)	AS P)	AS P)	AS P)	AS C)		
		AS N)	AS N)	AS N)									
JUN 14...	0.09	0.73	<0.015		0.5		<0.01		<0.01		11.0		
AUG 27...	0.14	2.60	<0.015		0.5		<0.01		<0.01		7.6		
		ARSENIC	BARIUM,	BORON,	COBALT,	IRON,	LITHIUM	MANGA-	MOLYB-	STRON-	ZINC,		
		DIS-	DIS-	DIS-	DIS-	DIS-	DIS-	NESE,	DENUM,	TIUM,	DIS-		
		SOLVED	SOLVED	SOLVED	SOLVED	SOLVED	SOLVED	DIS-	DIS-	SOLVED	SOLVED		
		(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	DIS-	SOLVED	(UG/L	(UG/L		
		AS AS)	AS BA)	AS B)	AS CO)	AS FE)	AS LI)	SOLVED	(UG/L	AS MO)	AS NI)	AS SR)	
NOV 07...	--	--	550	--	--	--	--	--	--	--	4500	--	
JUN 14...	5	110	630	<1	11	110	<3	26	<1	4200	<9		
AUG 27...	5	120	610	<1	16	130	<3	26	<1	3400	<9		

## GREEN RIVER BASIN

**09306255 YELLOW CREEK NEAR WHITE RIVER, CO--Continued**

## MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-	CHARGE,	SPE-	DATE	DIS-	CHARGE,	SPE-	TEMPER-
		INST.	CIFIC	INST.		CIFIC	INST.	CIFIC	
CUBIC	CON-	CUBIC	CON-	CUBIC	CON-	CUBIC	CON-	TEMPER-	
FEET	DUCT-	FEET	DUCT-	FEET	DUCT-	FEET	DUCT-	ATURE	
PER	ANCE	PER	WATER	PER	ANCE	PER	WATER	(DEG C)	
SECOND	(US/CM)	SECOND	(DEG C)	SECOND	(US/CM)	SECOND	(US/CM)	(DEG C)	
OCT 10...	1633	1.8	3400	13.0	MAY 17...	0952	2.3	3660	13.5
JAN 23...	1220	1.6	3470	0.0	JUL 11...	1131	1.5	3480	21.5
MAR 15...	1220	3.0	3630	9.5	AUG 28...	1222	1.2	3300	21.5
MAR 21...	1200	2.7	2000	10.0					
APR 16...	1415	3.0	3710	15.5					

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-	CHARGE,	SEDI-	DATE	DIS-	CHARGE,	SEDI-	SEDI-
		INST.	SEDI-	MENT,		INST.	SEDI-	MENT,	
CUBIC	SEDI-	DIS-	CUBIC	SEDI-	DIS-	CUBIC	SEDI-	DIS-	
FEET	MENT,	CHARGE,	SUS-	SUS-	CHARGE,	SUS-	SUS-	CHARGE,	
PER	PENDED	PENDED	SUS-	SUS-	SUS-	SUS-	SUS-	SUS-	
SECOND	(MG/L)	(T/DAY)	SECOND	(MG/L)	SECOND	SECOND	(MG/L)	(T/DAY)	
NOV 07...	0910	1.7	257	1.2	MAR 12...	1530	3.4	264	2.4
JUN 14...	1330	1.7	40	0.19	AUG 27...	0815	1.7	54	0.25

## GREEN RIVER BASIN

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**09306290 WHITE RIVER BELOW BOISE CREEK, NEAR RANGELY, CO**

LOCATION.--Lat 40°10'47", long 108°33'53", in SW<sup>1/4</sup>SE<sup>1/4</sup> sec.36, T.3 N., R.100 W., Rio Blanco County, Hydrologic Unit 14050007, on left bank at bridge on County Road 73, 0.5 mi downstream from Boise Creek, and 16.4 mi east of Rangely.

DRAINAGE AREA.--2,530 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--August 1982 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 5,395 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 31,500 acres.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	729	572	498	e480	e420	e400	537	1030	1640	1030	546	275
2	621	589	490	e460	e380	e430	578	1050	1690	971	529	283
3	597	520	483	e460	e360	e410	628	1120	1830	935	524	272
4	629	491	474	e480	e350	e440	622	1270	2000	900	498	250
5	720	512	485	e490	e360	e470	623	1400	2180	884	488	223
6	652	511	498	e470	e430	e440	620	1640	2370	890	437	249
7	615	518	512	e480	e440	e420	640	1860	2510	832	409	312
8	612	505	500	e490	e410	411	698	1940	2490	777	393	308
9	600	492	476	e500	e400	432	796	2020	2440	764	376	302
10	584	539	465	e500	e400	495	944	2050	2370	739	370	297
11	578	525	461	e500	e400	551	1100	2020	2320	734	370	298
12	578	497	452	e470	e380	587	1080	2130	2160	705	355	326
13	581	514	460	e490	e380	592	1030	2390	2030	633	385	395
14	580	510	469	e490	e390	560	983	2470	2030	600	350	433
15	561	508	440	e480	e410	545	922	2560	1950	592	356	415
16	552	504	408	e480	e390	577	857	2750	1940	641	310	404
17	552	499	445	e460	e400	550	826	3030	1890	636	303	469
18	545	493	429	e430	e430	522	814	3380	1810	688	285	497
19	543	485	405	e420	e410	477	806	3100	1810	718	324	488
20	533	481	376	e450	e430	441	758	2880	1760	630	371	497
21	525	479	e350	e460	e480	470	725	2540	1890	571	353	497
22	560	475	e370	e460	e580	540	706	2240	2260	532	325	503
23	578	475	e350	e460	e480	664	673	2200	2040	528	319	494
24	563	468	e320	e440	e450	679	678	2190	1780	531	313	514
25	551	460	e280	e440	e460	544	796	1990	1560	507	305	533
26	561	465	e300	e440	e460	486	1010	1990	1400	515	304	535
27	572	505	e320	e380	e440	475	1090	1840	1340	497	320	548
28	551	463	e330	e420	e430	481	1160	1700	1310	488	329	533
29	538	465	e370	e440	e410	510	1160	1810	1210	509	305	513
30	539	502	e430	e440	---	551	1060	1590	1120	633	287	495
31	542	---	e480	e440	---	529	---	1560	---	592	274	---
TOTAL	18042	15022	13126	14300	12160	15679	24920	63740	57130	21202	11413	12158
MEAN	582	501	423	461	419	506	831	2056	1904	684	368	405
MAX	729	589	512	500	580	679	1160	3380	2510	1030	546	548
MIN	525	460	280	380	350	400	537	1030	1120	488	274	223
AC-FT	35790	29800	26040	28360	24120	31100	49430	126400	113300	42050	22640	24120

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1996, BY WATER YEAR (WY)

MEAN	540	515	441	396	394	529	789	1808	2124	979	521	451
MAX	858	710	663	572	531	752	1511	3434	4572	2175	1117	849
(WY)	1985	1986	1986	1986	1986	1986	1985	1984	1984	1995	1984	1984
MIN	359	362	301	260	268	324	370	566	542	254	202	237
(WY)	1993	1991	1991	1991	1991	1995	1995	1990	1994	1994	1990	1990

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1983 - 1996
ANNUAL TOTAL	320561	278892	
ANNUAL MEAN	878	762	792
HIGHEST ANNUAL MEAN			1345
LOWEST ANNUAL MEAN			428
HIGHEST DAILY MEAN	4520	Jun 18	6170
LOWEST DAILY MEAN	250	Jan 1	May 26 1984
ANNUAL SEVEN-DAY MINIMUM	273	Jan 15	109 Aug 6 1994
INSTANTANEOUS PEAK FLOW		3520 May 18	147 Aug 3 1994
INSTANTANEOUS PEAK STAGE		a 6.26 May 18	6440 Jun 7 1984
ANNUAL RUNOFF (AC-FT)	635800	553200	8.45 May 26 1984
10 PERCENT EXCEEDS	2690	1870	573500 1700
50 PERCENT EXCEEDS	485	510	510
90 PERCENT EXCEEDS	290	354	312

e-Estimated.

a-Maximum gage height, 8.19 ft, Feb 22, backwater from ice.

## GREEN RIVER BASIN

**09306290 WHITE RIVER BELOW BOISE CREEK, NEAR RANGELY, CO--Continued**  
**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--October 1982 to September 1993. October 1994 to current year.

**WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996**

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC COND- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	COLI- FORM, FECAL, UM-MF (COLS./ 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JAN 10...	1545	500	634	7.9	0.0	11.0	0.9	K11	--	--	--
MAR 12...	1530	622	779	8.1	8.0	10.4	1.2	160	270	63	28
APR 30...	1000	1060	512	8.2	8.0	11.0	1.6	74	--	--	--
JUN 12...	1345	2200	330	7.5	14.0	9.6	1.0	--	--	--	--
JUN 14...	1330	--	--	--	--	--	--	78	--	--	--
SEP 10...	1410	296	727	8.3	18.5	9.4	1.3	K33	290	69	29
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DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY SOLVED (MG/L AS CACO3)	SULFATE LAB DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, CONSTITUENTS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	
MAR 12...	61	2	2.5	186	200	12	0.2	12	491	0.67	
SEP 10...	41	1	2.0	186	180	12	0.3	12	457	0.62	
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DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	
JAN 10...	--	<0.01	0.18	<0.015	--	<0.2	<0.2	<0.01	<0.01	<0.01	<0.01
MAR 12...	824	<0.01	0.11	<0.015	--	0.3	<0.2	0.04	<0.01	0.02	
APR 30...	--	<0.01	0.13	0.02	0.18	0.2	0.2	0.02	<0.01	<0.01	
JUN 12...	--	<0.01	0.09	0.05	--	0.2	<0.2	0.05	0.02	0.01	
SEP 10...	365	<0.01	0.06	0.02	0.28	0.3	0.3	0.01	<0.01	<0.01	
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DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BORON, TOTAL RECOV- ERABLE (UG/L AS BE)	CADMIUM BORON, TOTAL RECOV- ERABLE (UG/L AS B)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CD)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CO)		
MAR 12...	<10	<10	3	200	<10	60	<1	15	7	14	
SEP 10...	120	<5	<1	<100	<10	70	<1	<1	<1	2	

K-Based on non-ideal colony count.

## GREEN RIVER BASIN

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## 09306290 WHITE RIVER BELOW BOISE CREEK, NEAR RANGELY, CO--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL DIS- SOLVED (UG/L AS SE)	STRON- TIUM, TOTAL RECOV- ERABLE (UG/L AS SR)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
MAR 12...	11000	9	30	360	<1	14	2	880	80
SEP 10...	150	<1	20	20	2	2	<1	720	<10

## MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
OCT 05...	1132	724	650	9.0	JUN 12...	1205	2190	331	13.0
NOV 08...	1218	492	640	4.5	JUL 11...	1324	757	530	21.0
MAR 13...	1210	620	782	7.5	AUG 28...	1107	330	735	20.0
APR 18...	1317	812	685	8.5					
MAY 16...	1630	2950	295	15.0					

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, MENT, CHARGE, SUS- PENDED (MG/L)	SED- IMENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SIEVE DIAM. % FINE THAN .062 MM
JAN 10...	1545	500	25	34	--
MAR 12...	1530	622	1390	2330	94
APR 30...	1000	1060	259	741	72
JUN 12...	1345	2200	348	2070	47
SEP 10...	1410	296	203	162	--

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
MAR 28...	0930	275	105	78
APR 21...	0900	419	572	647
JUN 28...	1523	3110	1050	8800
AUG 18...	1130	486	117	154
SEP 21...	0915	470	78	99

## GREEN RIVER BASIN

**09306305 WHITE RIVER BELOW TAYLOR DRAW RESERVOIR, ABOVE RANGELY, CO**  
**WATER-QUALITY RECORDS**

LOCATION.--Lat 40°06'12", long 108°42'56" in NW<sup>1/4</sup>NE<sup>1/4</sup> sec.34, T.2 N., R.101 W., Rio Blanco County, Hydrologic Unit 14050007, on left bank 0.2 mi downstream from Taylor Draw Dam, and 4.7 mi east of Rangely.

DRAINAGE AREA.--2,773 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1994 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-	CHARGE,	SPE-	OXYGEN	COLI-	HARD-	MAGNE-
		INST.	CIFIC	pH	TEMPER-	BIO-	FORM,	SUIM,
CUBIC	DUCT-	(STAND-	ATURE	OXYGEN,	CHEM-	FECAL,	TOTAL	DIS-
FEET	PER	ANCE	ARD	(DEG C)	SOLVED	ICAL,	(MG/L)	SOLVED
SECOND	(US/CM)	UNITS)		(MG/L)	5 DAY	(MG/L)	(COLS./100 ML)	(MG/L)
JAN 10...	1400	475	700	7.9	0.5	11.8	0.6	K9
MAR 25...	1015	539	810	8.4	5.0	11.9	0.1	110
MAY 31...	1200	1330	412	8.1	13.0	10.1	--	230
JUN 12...	1230	2170	314	7.6	17.5	9.0	1.3	82
AUG 28...	1245	236	694	7.8	20.5	8.8	0.9	33
DATE		SODIUM,	POTAS-	ALKA-	CHLO-	FLUO-	SILICA,	SOLIDs,
		DIS-	SIUM,	LINITY	SULFATE	RIDE,	RIDE,	SOLIDs,
SOLVED	SORP-	DIS-	DIS-	LAB	DIS-	DIS-	DIS-	SOLVED
(MG/L)	TION	SOLVED	(MG/L)	(MG/L)	SOLVED	SOLVED	SOLVED	(TONS
AS NA)	RATIO	AS K)	AS	AS CACO3)	AS SO4)	AS CL)	AS F)	AS PER
JAN 10...	--	--	--	--	--	--	--	--
MAR 25...	53	1	1.9	197	210	15	0.30	12
MAY 31...	--	--	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--
AUG 28...	45	1	1.8	191	160	13	0.30	13
DATE		SOLIDS,	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	PHOS-
		DIS-	GEN,	NO2+NO3	GEN,	GEN, AM-	GEN, AM-	PHORUS
SOLVED	NITRITE	DIS-	DIS-	AMMONIA	ORGANIC	MONIA +	MONIA +	ORTHO,
(TONS	DIS-	SOLVED	SOLVED	DIS-	SOLVED	ORGANIC	ORGANIC	DIS-
PER	(MG/L)	AS N)	AS N)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	SOLVED
DAY)	AS N)			AS N)	AS N)	AS N)	AS P)	(MG/L)
JAN 10...	--	<0.01	0.12	<0.02	--	0.2	<0.2	0.01
MAR 25...	749	<0.01	0.11	0.03	--	0.2	<0.2	0.02
MAY 31...	--	<0.01	0.18	<0.02	--	0.3	<0.2	0.03
JUN 12...	--	<0.01	0.08	0.05	--	0.3	<0.2	0.08
AUG 28...	277	0.01	<0.05	0.05	0.15	0.3	0.2	0.02

K-based on non-ideal colony count.

**09306305 WHITE RIVER BELOW TAYLOR DRAW RESERVOIR, ABOVE RANGELY, CO--Continued**

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	ALUM-	ALUM-	BARIUM,	LIUM,	BERYL-	CADMIUM	CHRO-	COBALT,	COPPER,	
	INUM, TOTAL	INUM, RECOV-	TOTAL ARSENIC	TOTAL RECOV-	BORON, ERABLE	TOTAL SOLVED	MIUM, TOTAL	TOTAL RECOV-	TOTAL ERABLE	
(UG/L AS AL)	(UG/L AS AL)	(UG/L AS AS)	(UG/L AS BA)	(UG/L AS BE)	(UG/L AS B)	(UG/L AS CD)	(UG/L AS CR)	(UG/L AS CO)	(UG/L AS CU)	
MAR 25...	--	<10	1	<100	<10	70	<1	1	<1	3
AUG 28...	220	<5	2	<100	<10	60	<1	<1	<1	1

DATE	IRON,	LEAD,	LITHIUM	MANGA-	MOLYB-	NICKEL,	SELE-	STRON-	ZINC,
	TOTAL	TOTAL	TOTAL	NESE ,	DENUM ,	TOTAL	NIUM ,	TOTAL	TOTAL
(UG/L AS FE)	(UG/L AS PB)	(UG/L AS LI)	(UG/L AS MN)	RECOV -	RECOV -	RECOV -	DIS -	RECOV -	RECOV -
MAR 25...	380	<1	10	50	2	<1	2	850	<10
AUG 28...	320	<1	10	60	2	<1	<1	700	<10

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-	SEDI-	SED.
		CHARGE, INST.	MENT, DIS-	SUSP. SIEVE
	CUBIC FEET	MENT , SUS-	CHARGE , SUS-	DIAM. % FINER
	PER SECOND	PENDED (MG/L)	PENDED (T/DAY)	THAN .062 MM
JAN 10...	1400	475	39	50
MAR 25...	1015	539	72	105
MAY 31...	1200	1330	26	93
JUN 12...	1230	2170	38	223
AUG 28...	1245	236	418	266

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-	SEDI-
		CHARGE, INST.	MENT, DIS-
	CUBIC FEET	MENT , SUS-	CHARGE , SUS-
	PER SECOND	PENDED (MG/L)	PENDED (T/DAY)
APR 21...	1130	612	81 134
JUN 20...	1200	3180	77 661
JUL 20...	1000	1990	23 124
AUG 18...	1030	548	53 78
SEP 21...	0830	440	12 14

**09339900 EAST FORK SAN JUAN RIVER ABOVE SAND CREEK, NEAR PAGOSA SPRINGS, CO**

LOCATION.--Lat 37°23'23", long 106°50'26", in NE<sup>1/4</sup> sec.4, T.36 N., R.1 E., Archuleta County, Hydrologic Unit 14080101, on right bank 0.3 mi upstream from Sand Creek, 4.0 mi upstream from West Fork San Juan River, and 13 mi northeast of Pagosa Springs.

DRAINAGE AREA.--64.1 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1956 to September 1996 (discontinued). Prior to October 1959, published as San Juan River above Sand Creek, near Pagosa Springs.

REVISED RECORDS.--WSP 1713: 1957.

GAGE.--Water-stage recorder. Elevation of gage is 7,940 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 500 acres of hay meadows upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

EXTREMES OUTSIDE PERIOD OF RECORD.--Greatest flood since at least 1885 occurred Oct. 5, 1911.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	21	e17	e12	e13	e18	37	145	113	46	20	14
2	43	21	e16	e12	e15	44	154	113	40	18	14	
3	41	18	e16	e12	e11	e17	38	183	109	36	18	13
4	38	18	e16	e13	e11	e18	36	221	113	32	21	13
5	35	18	e16	e13	e18	35	257	109	32	18	13	
6	34	19	17	e12	e13	e18	36	274	111	30	16	13
7	33	19	e16	e12	e14	e15	38	288	108	30	15	13
8	32	19	e15	e12	e14	e17	47	294	102	38	16	12
9	31	19	e14	e13	e14	e19	69	298	91	81	16	12
10	30	21	e14	e13	e15	e20	81	302	83	76	15	12
11	29	17	e15	e13	e15	e23	71	325	80	56	14	12
12	29	18	e16	e12	e15	e26	62	340	75	49	14	14
13	28	19	17	e13	e15	e24	66	355	71	44	13	14
14	27	19	17	e13	e15	e22	56	375	77	37	13	22
15	27	19	e15	e13	e17	e20	52	408	80	50	13	25
16	26	19	e12	e13	e18	e20	55	408	65	43	13	18
17	26	19	e16	e12	e19	e20	57	421	58	71	13	18
18	25	19	e14	e11	e19	e18	53	396	54	82	12	25
19	24	18	e15	e13	e18	e19	49	371	48	63	12	25
20	23	18	e15	e14	e20	e20	49	355	43	46	11	23
21	23	18	e15	e13	e23	e23	44	307	46	37	14	22
22	23	18	e13	e13	e30	e26	47	271	61	31	16	22
23	18	18	e10	e13	e26	28	61	239	47	28	17	20
24	19	e17	e8.2	e12	e22	25	87	185	39	25	27	20
25	19	e16	e10	e12	e22	24	130	156	36	24	17	19
26	19	18	e11	e11	e20	22	170	131	37	23	17	19
27	19	e15	e11	e11	e15	22	195	116	64	21	22	18
28	19	e11	e11	e13	e15	23	187	106	73	23	17	18
29	19	e14	e12	e13	e16	23	136	99	60	28	16	17
30	19	e17	e13	e13	---	24	129	107	48	25	15	17
31	19	---	e14	e13	---	29	---	106	---	21	14	---
TOTAL	845	540	437.2	388	490	656	2217	7993	2214	1268	493	517
MEAN	27.3	18.0	14.1	12.5	16.9	21.2	73.9	258	73.8	40.9	15.9	17.2
MAX	48	21	17	14	30	29	195	421	113	82	27	25
MIN	18	11	8.2	11	11	15	35	99	36	21	11	12
AC-FT	1680	1070	867	770	972	1300	4400	15850	4390	2520	978	1030

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1996, BY WATER YEAR (WY)

MEAN	34.9	22.4	14.3	12.0	13.0	26.5	105	300	340	118	53.8	43.0
MAX	107	74.9	30.3	21.7	24.6	62.9	248	520	788	395	143	207
(WY)	1987	1987	1987	1973	1995	1986	1985	1984	1957	1957	1957	1970
MIN	8.39	8.31	4.68	5.00	5.66	8.86	29.2	70.4	60.2	23.9	15.6	10.6
(WY)	1957	1961	1959	1959	1990	1977	1977	1977	1977	1959	1972	1978

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1957 - 1996
ANNUAL TOTAL	49950.2	18058.2	
ANNUAL MEAN	137	49.3	90.4
HIGHEST ANNUAL MEAN			155
LOWEST ANNUAL MEAN			31.5
HIGHEST DAILY MEAN	957	Jun 17	1180
LOWEST DAILY MEAN	e8.2	Dec 24	3.4
ANNUAL SEVEN-DAY MINIMUM	10	Dec 23	Dec 26 1958
INSTANTANEOUS PEAK FLOW		495	Dec 13 1958
INSTANTANEOUS PEAK STAGE		4.40	a2260 Sep 14 1970
ANNUAL RUNOFF (AC-FT)	99080	35820	65470
10 PERCENT EXCEEDS	494	112	275
50 PERCENT EXCEEDS	45	20	29
90 PERCENT EXCEEDS	16	13	10

e-Estimated.

a-From rating curve extended above 460 ft<sup>3</sup>/s, on basis of slope-area measurement at gage height, 6.13 ft.

## 09342500 SAN JUAN RIVER AT PAGOSA SPRINGS, CO

LOCATION.--Lat 37°15'58", long 107°00'37", in NE<sup>1/4</sup>SW<sup>1/4</sup> sec.13, T.35 N., R.2 W., Archuleta County, Hydrologic Unit 14080101, on right bank at former bridge site in Pagosa Springs, 0.2 mi upstream from McCabe Creek, 0.6 mi downstream from bridge on U.S. Highway 160, and 2.0 mi upstream from Mill Creek.

DRAINAGE AREA.--298 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1910 to December 1914, May 1935 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1313: 1914(M).

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 7,052.04 ft above sea level. Jan. 29 to Mar. 6, 1911, nonrecording gage at site 0.5 mi upstream, at different datum. Mar. 7 to Oct. 4, 1911, nonrecording gage at present site, at different datum. Nov. 23, 1911 to Nov. 14, 1914, nonrecording gage at site 300 ft downstream, at different datum.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Diversions for irrigation of large areas upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1885, that of Oct. 5, 1911. Flood of June 29, 1927, reached a stage of 13.5 ft, discharge about 16,000 ft<sup>3</sup>/s, from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	177	77	61	45	47	58	168	680	365	230	53	55
2	157	81	60	42	48	62	241	741	356	193	50	51
3	142	67	57	42	e41	66	216	878	351	175	52	51
4	132	64	58	45	e42	73	188	990	339	148	56	47
5	119	67	56	48	49	71	180	1100	325	136	54	39
6	116	68	57	44	50	71	178	1170	316	96	47	41
7	113	65	55	44	50	59	201	1170	314	89	41	42
8	101	64	57	44	51	69	239	1160	293	93	39	38
9	96	65	49	46	51	76	326	1170	263	167	41	38
10	93	74	49	48	55	88	393	1120	248	217	43	36
11	91	58	51	45	59	99	344	1230	245	139	40	36
12	89	68	54	45	56	112	287	1360	225	119	37	52
13	89	70	59	48	54	101	321	1390	209	134	34	69
14	84	69	58	48	58	87	259	1390	228	114	33	99
15	82	66	49	47	67	84	239	1480	322	106	33	185
16	81	65	43	47	70	81	254	1530	270	99	33	121
17	80	65	57	46	72	80	257	1600	220	131	34	103
18	81	62	49	e41	74	73	229	1500	192	210	32	144
19	78	61	53	48	71	75	207	1410	171	178	30	165
20	76	61	51	51	77	86	202	1300	155	115	31	150
21	75	60	52	e46	101	107	184	1110	148	96	40	142
22	75	59	52	e48	128	129	168	956	254	81	63	141
23	65	59	47	e48	101	153	226	826	218	69	58	131
24	68	52	e29	e46	87	133	409	675	159	63	117	125
25	71	54	e34	e45	90	102	587	566	131	58	95	116
26	70	60	e38	e43	78	98	811	497	121	62	80	114
27	71	52	e41	e42	58	99	920	421	255	59	100	101
28	70	39	e40	47	64	114	938	388	320	54	105	89
29	72	48	e42	49	71	116	635	353	277	73	76	86
30	71	59	e44	47	---	107	572	377	189	76	67	80
31	72	---	48	47	---	119	---	366	---	58	60	---
TOTAL	2857	1879	1550	1422	1920	2848	10379	30904	7479	3638	1674	2687
MEAN	92.2	62.6	50.0	45.9	66.2	91.9	346	997	249	117	54.0	89.6
MAX	177	81	61	51	128	153	938	1600	365	230	117	185
MIN	65	39	29	41	41	58	168	353	121	54	30	36
AC-FT	5670	3730	3070	2820	3810	5650	20590	61300	14830	7220	3320	5330

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 1996, BY WATER YEAR (WY)

MEAN	145	93.3	63.9	55.2	62.4	145	566	1287	1351	402	175	148
MAX	937	399	160	107	142	442	1210	2665	3066	1515	638	859
(WY)	1942	1987	1987	1986	1995	1986	1985	1941	1957	1941	1957	1970
MIN	23.3	33.6	27.5	26.8	29.2	50.3	141	253	163	62.8	28.9	18.8
(WY)	1957	1956	1990	1990	1964	1964	1977	1977	1977	1959	1972	1956

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1936 - 1996

ANNUAL TOTAL	218195	69237	
ANNUAL MEAN	598	189	375
HIGHEST ANNUAL MEAN			730
LOWEST ANNUAL MEAN			115
HIGHEST DAILY MEAN	4080	Jun 17	1600
LOWEST DAILY MEAN	24	Jan 18	e29
ANNUAL SEVEN-DAY MINIMUM	38	Dec 24	32
INSTANTANEOUS PEAK FLOW			2090
INSTANTANEOUS PEAK STAGE			4.39
ANNUAL RUNOFF (AC-FT)	432800	137300	25000
10 PERCENT EXCEEDS	1960	380	b17.80
50 PERCENT EXCEEDS	205	76	271700
90 PERCENT EXCEEDS	57	43	1160
			108
			43

e-Estimated.

a-Also occurred Oct 6, 1956.

b-From floodmarks.

## SAN JUAN RIVER BASIN

**09343300 RIO BLANCO BELOW BLANCO DIVERSION DAM, NEAR PAGOSA SPRINGS, CO**

LOCATION.--Lat 37°12'13", long 106°48'38", in NE<sup>1/4</sup>NW<sup>1/4</sup> sec.11, T.34 N., R.1 E., Archuleta County, Hydrologic Unit 14080101, on left bank 250 ft downstream from Blanco Diversion Dam, 1.1 mi downstream from Leche Creek, and 12 mi southeast of Pagosa Springs.

DRAINAGE AREA.--69.1 mi<sup>2</sup>.

PERIOD OF RECORD.--March 1971 to current year.

GAGE.--Water-stage recorder and Parshall flume with satellite telemetry. Datum of gage is 7,858.04 ft above sea level, (levels by U. S. Bureau of Reclamation).

REMARKS.--Records good except for Oct. 1 to Dec. 7 (unstable approach conditions at flume), and estimated daily discharges, which are poor. Flows controlled by diversion dam upstream.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	22	17	13	14	e22	25	44	29	22	20	14
2	35	20	17	13	e12	e22	25	45	29	22	21	14
3	33	15	e16	14	e10	e22	24	46	29	22	20	13
4	32	17	16	15	e12	23	24	47	29	22	20	13
5	30	15	e15	14	14	21	24	48	30	22	19	13
6	30	16	17	12	15	20	24	45	29	22	18	14
7	29	16	17	12	16	e20	24	46	30	22	17	13
8	28	17	16	e11	16	e20	25	45	31	22	17	13
9	27	18	e14	12	19	e24	26	44	30	23	17	12
10	25	19	e14	13	e20	32	25	44	30	21	17	11
11	23	17	e15	13	e25	39	25	45	30	20	16	11
12	23	23	e15	14	27	43	25	45	30	20	15	15
13	24	30	16	17	23	34	25	45	30	20	14	21
14	24	31	17	20	e20	31	25	45	30	20	14	68
15	24	29	e14	19	e25	28	23	45	31	20	14	49
16	22	27	e14	e14	e30	27	23	45	30	20	14	28
17	22	26	16	13	34	27	23	43	30	20	11	38
18	21	25	e15	13	34	26	23	42	30	21	9.7	40
19	20	24	16	15	29	27	23	42	30	22	11	26
20	19	23	e15	14	34	31	23	43	29	22	11	25
21	18	22	e15	14	54	31	23	42	29	21	12	25
22	18	21	16	13	37	21	23	37	30	21	18	25
23	15	20	15	13	31	24	24	31	29	24	24	25
24	16	19	e14	14	e28	24	25	31	29	23	36	25
25	16	19	13	14	27	24	26	31	27	23	29	25
26	16	20	12	14	23	24	24	31	23	23	22	25
27	16	17	11	15	20	24	24	32	24	23	26	23
28	16	13	14	15	e22	24	23	32	25	23	21	24
29	16	15	14	14	23	24	22	32	23	22	20	22
30	16	17	e13	14	---	24	32	31	23	22	17	22
31	16	---	14	14	---	24	---	30	---	20	15	---
TOTAL	713	613	463	435	694	807	730	1254	858	670	555.7	692
MEAN	23.0	20.4	14.9	14.0	23.9	26.0	24.3	40.5	28.6	21.6	17.9	23.1
MAX	43	31	31	20	54	43	32	48	31	24	36	68
MIN	15	13	11	11	10	20	22	30	23	20	9.7	11
AC-FT	1410	1220	918	863	1380	1600	1450	2490	1700	1330	1100	1370

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1996, BY WATER YEAR (WY)

MEAN	39.6	30.0	20.0	16.6	19.2	38.5	49.2	110	140	70.8	38.7	38.3
MAX	145	98.3	35.6	26.4	40.0	103	200	340	654	330	99.8	161
(WY)	1987	1987	1987	1986	1995	1989	1989	1984	1985	1995	1995	1982
MIN	16.1	13.5	8.52	7.58	10.0	17.5	20.4	40.5	18.9	19.7	15.0	15.8
(WY)	1993	1990	1990	1990	1990	1981	1974	1996	1977	1972	1972	1974

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1971 - 1996
ANNUAL TOTAL	35662	8484.7	
ANNUAL MEAN	97.7	23.2	
HIGHEST ANNUAL MEAN			52.0
LOWEST ANNUAL MEAN			135
HIGHEST DAILY MEAN	808	Jun 21	19.5
LOWEST DAILY MEAN	11	Dec 27	1.0
ANNUAL SEVEN-DAY MINIMUM	13	Dec 24	6.8
INSTANTANEOUS PEAK FLOW		181 Sep 14	3130 Aug 24 1992
INSTANTANEOUS PEAK STAGE		a 3.28 Sep 14	5.14 Aug 24 1992
ANNUAL RUNOFF (AC-FT)	70740	16830	37650
10 PERCENT EXCEEDS	305	34	106
50 PERCENT EXCEEDS	39	22	23
90 PERCENT EXCEEDS	16	14	15

e-Estimated.

a-Maximum gage height, 3.50 ft, Feb 10, 1996, backwater from ice.

**09344400 NAVAJO RIVER BELOW OSO DIVERSION DAM, NEAR CHROMO, CO**

LOCATION.--Lat 37°01'49", long 106°44'14", in NE<sup>1/4</sup> sec.9, T.32 N., R.2 E., Archuleta County, Hydrologic Unit 14080101, on left bank 600 ft downstream from Oso Diversion Dam, 5.8 mi east of Chromo, and 6.1 mi upstream from Little Navajo River.

DRAINAGE AREA.--100.5 mi<sup>2</sup>.

PERIOD OF RECORD.--March 1971 to current year.

GAGE.--Water-stage recorder with satellite telemetry, and Parshall flume. Datum of gage is 7,648.40 ft (revised) above sea level, (levels by U. S. Bureau of Reclamation). Prior to Sept. 5, 1979, at same site, at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flows controlled by diversion dam upstream.

COOPERATION.--Records collected by U.S. Bureau of Reclamation, computed by Colorado Division of Water Resources, and reviewed by Geological Survey.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	48	29	33	34	39	43	90	55	57	34	37
2	70	47	46	e32	e32	40	39	88	55	56	33	36
3	66	40	30	e32	e30	40	41	80	57	56	37	36
4	62	41	30	33	e30	42	39	91	58	58	37	37
5	58	41	36	34	e34	42	38	91	58	58	32	35
6	56	41	35	e32	39	42	38	90	59	58	28	36
7	55	40	29	e30	38	38	38	90	59	58	24	34
8	53	40	36	e28	e36	40	38	89	59	56	25	32
9	53	40	35	e32	e36	42	37	89	59	56	28	32
10	53	48	35	35	39	46	37	90	59	55	27	31
11	52	39	43	e34	39	51	38	90	59	55	26	31
12	50	43	46	e32	35	48	39	90	59	56	25	33
13	50	46	40	e30	34	39	38	90	59	57	24	34
14	48	46	38	e30	34	39	38	90	59	57	26	43
15	47	46	35	32	40	43	39	91	59	57	26	53
16	45	40	33	32	44	46	39	93	59	55	26	39
17	45	38	35	30	44	47	39	91	58	55	30	44
18	45	42	33	e30	45	45	39	90	58	56	32	61
19	44	41	33	e28	43	46	38	91	56	57	28	64
20	43	42	32	e30	49	51	38	91	56	57	27	58
21	42	41	e30	e32	68	46	38	91	58	50	33	49
22	42	39	32	e30	59	37	38	85	60	42	36	48
23	38	40	e30	e28	51	36	38	82	59	35	34	46
24	43	37	e26	e30	47	36	38	82	58	36	47	43
25	43	39	e28	e30	47	38	38	82	56	36	48	39
26	42	39	e28	e28	43	39	38	82	58	35	39	39
27	39	35	e28	e26	37	38	38	82	59	35	40	38
28	38	43	e30	e32	39	38	39	82	57	40	48	37
29	39	36	32	e34	42	38	39	82	56	42	58	37
30	40	36	30	35	--	38	69	80	56	40	44	27
31	40	---	32	34	---	40	---	68	---	36	37	---
TOTAL	1517	1234	1035	968	1188	1290	1186	2693	1737	1557	1039	1209
MEAN	48.9	41.1	33.4	31.2	41.0	41.6	39.5	86.9	57.9	50.2	33.5	40.3
MAX	76	48	46	35	68	51	69	93	60	58	58	64
MIN	38	35	26	26	30	36	37	68	55	35	24	27
AC-FT	3010	2450	2050	1920	2360	2560	2350	5340	3450	3090	2060	2400

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1996, BY WATER YEAR (WY)

MEAN	54.3	46.7	38.8	35.3	37.1	60.9	58.5	132	160	95.0	65.1	59.6
MAX	161	132	71.9	51.3	52.7	135	183	271	720	406	124	146
(WY)	1987	1987	1987	1985	1986	1989	1993	1984	1985	1995	1982	1982
MIN	26.3	27.4	21.3	19.8	24.4	32.0	37.5	86.9	44.7	40.2	28.1	28.4
(WY)	1981	1990	1977	1990	1990	1977	1973	1996	1977	1972	1972	1978

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1971 - 1996
ANNUAL TOTAL	48078	16653	
ANNUAL MEAN	132	45.5	71.1
HIGHEST ANNUAL MEAN			158
LOWEST ANNUAL MEAN			41.5
HIGHEST DAILY MEAN	918	Jun 21	May 16
LOWEST DAILY MEAN	e26	Dec 24	a24 Aug 7
ANNUAL SEVEN-DAY MINIMUM	29	Dec 21	26 Aug 7
INSTANTANEOUS PEAK FLOW			150 May 17
INSTANTANEOUS PEAK STAGE			2.66 May 17
ANNUAL RUNOFF (AC-FT)	95360	33030	51540
10 PERCENT EXCEEDS	367	65	122
50 PERCENT EXCEEDS	78	40	48
90 PERCENT EXCEEDS	36	30	31

e-Estimated.

a-Also occurred Aug 13.

b-Also occurred Oct 11, 1981.

c-Maximum gage height, 5.07 ft, Feb 13, 1994, backwater from ice.

## SAN JUAN RIVER BASIN

**09345200 LITTLE NAVAJO RIVER BELOW LITTLE OSO DIVERSION DAM, NEAR CHROMO, CO**

LOCATION.--Lat 37°04'32", long 106°48'38", in SW<sup>1/4</sup> sec.23, T.33 N., R.1 E., Archuleta County, Hydrologic Unit 14080101, on right bank at Little Oso Diversion Dam, 3.5 mi northeast of Chromo, and 4.0 mi upstream from confluence with Navajo River.

DRAINAGE AREA.--14.2 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1971 to current year.

GAGE.--Water-stage recorder. Datum of gage is 7,756.10 ft above sea level, (levels by U.S. Bureau of Reclamation).

REMARKS.--Flows controlled by diversion dam upstream. Streamflow data for water year 1994 (not previously published), is published below. Streamflow data for water year 1996 is published on the following page.

COOPERATION.--Records collected and computed by U.S. Bureau of Reclamation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	27	30	e2.0	e2.0	e2.0
2	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	33	27	29	e2.0	e2.0	e2.0
3	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	37	29	30	e2.0	e2.0	e2.0
4	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	38	29	30	e2.0	e2.0	e2.0
5	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	15	29	30	e2.0	e2.0	e2.0
6	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	9.0	29	30	e2.0	e2.0	e2.0
7	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	6.5	29	29	e2.0	e2.0	e2.0
8	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	6.7	29	28	e2.0	e2.0	e2.0
9	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	7.1	28	29	e2.0	e2.0	e2.0
10	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	7.2	29	29	e2.0	e2.0	e2.0
11	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	7.2	29	29	e2.0	e2.0	e2.0
12	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	6.5	28	29	e2.0	e2.0	e2.0
13	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	6.7	29	28	e2.0	e2.0	e2.0
14	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	6.1	28	26	e2.0	e2.0	e2.0
15	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	6.5	28	23	e2.0	e2.0	e2.0
16	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	7.1	29	20	e2.0	e2.0	e2.0
17	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	6.9	28	19	e2.0	e2.0	e2.0
18	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	6.7	28	18	e2.0	e2.0	e2.0
19	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	6.7	28	20	e2.0	e2.0	e2.0
20	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	8.8	28	30	e2.0	e2.0	e2.0
21	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	9.0	28	e2.0	e2.0	e2.0	e2.0
22	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	9.0	29	e2.0	e2.0	e2.0	e2.0
23	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	8.6	28	e2.0	e2.0	e2.0	e2.0
24	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	8.4	29	e2.0	e2.0	e2.0	e2.0
25	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	8.4	30	e2.0	e2.0	e2.0	e2.0
26	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	8.8	29	e2.0	e2.0	e2.0	e2.0
27	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	9.0	30	e2.0	e2.0	e2.0	e2.0
28	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	9.4	30	e2.0	e2.0	e2.0	e2.0
29	e2.0	e2.0	e2.0	e2.0	---	e2.0	27	30	e2.0	e2.0	e2.0	e2.0
30	e2.0	e2.0	e2.0	e2.0	---	e2.0	27	30	e2.0	e2.0	e2.0	e2.0
31	e2.0	---	e2.0	e2.0	---	e2.0	---	30	---	e2.0	e2.0	---
TOTAL	62.0	60.0	62.0	56.0	62.0	355.3	891	556.0	62.0	62.0	60.0	
MEAN	2.00	2.00	2.00	2.00	2.00	11.8	28.7	18.5	2.00	2.00	2.00	
MAX	2.0	2.0	2.0	2.0	2.0	38	30	30	2.0	2.0	2.0	
MIN	2.0	2.0	2.0	2.0	2.0	2.0	27	2.0	2.0	2.0	2.0	
AC-FT	123	119	123	123	111	123	705	1770	1100	123	123	119

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1994, BY WATER YEAR (WY)

MEAN	6.64	5.23	2.80	2.47	2.55	8.22	14.1	25.0	18.9	7.23	4.01	3.95
MAX	49.9	46.4	8.82	5.82	6.53	32.0	45.7	66.3	29.3	17.1	9.25	17.3
(WY)	1987	1987	1987	1987	1986	1985	1989	1973	1983	1983	1986	1982
MIN	1.47	1.00	.47	1.02	1.03	1.95	4.19	4.86	1.87	.87	.47	1.02
(WY)	1976	1990	1990	1990	1977	1976	1977	1977	1977	1984	1972	1972

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1971 - 1994
ANNUAL TOTAL	4208.4	2350.3	
ANNUAL MEAN	11.5	6.44	8.50
HIGHEST ANNUAL MEAN			18.6
LOWEST ANNUAL MEAN			2.34
HIGHEST DAILY MEAN	70	Apr 22	202
LOWEST DAILY MEAN	a2.0	Jul 29	b.00
ANNUAL SEVEN-DAY MINIMUM	2.0	Oct 1	.02
INSTANTANEOUS PEAK FLOW		Not determined	c235
ANNUAL RUNOFF (AC-FT)	8350	4660	6160
10 PERCENT EXCEEDS	28	28	27
50 PERCENT EXCEEDS	3.3	2.0	3.5
90 PERCENT EXCEEDS	2.0	2.0	1.4

e-Estimated.

a-Occurs many times some years.

b-Also occurred Oct 21, 1988.

c-Gage height not determined.

## 09345200 LITTLE NAVAJO RIVER BELOW LITTLE OSO DIVERSION DAM, NEAR CHROMO, CO--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	3.0	2.4	2.0	e1.9	3.5	10	31	6.9	8.6	1.3	.98
2	3.0	2.6	2.1	1.9	e1.9	3.5	6.9	30	6.3	4.8	1.2	.98
3	3.0	1.7	2.0	e1.9	e1.9	3.6	8.4	29	5.4	2.8	1.6	.88
4	2.9	2.5	2.1	e1.9	e1.9	3.6	7.0	29	4.8	2.2	1.5	.88
5	2.8	2.0	2.1	e1.9	e1.9	3.6	7.0	29	4.4	2.1	1.2	1.1
6	2.9	2.4	2.1	e1.9	e1.9	3.8	4.6	32	4.1	2.0	1.1	1.4
7	2.8	2.2	2.0	e1.9	1.9	3.6	6.7	31	3.9	2.1	.88	.98
8	2.8	2.2	2.2	e1.9	2.0	3.8	6.5	28	3.6	5.8	.98	.88
9	2.6	2.5	1.7	e1.9	2.1	4.1	7.4	26	3.3	6.9	1.2	.70
10	2.5	2.5	1.9	e1.9	2.4	4.6	7.2	25	3.0	3.2	1.2	.70
11	2.5	1.7	1.9	e1.9	2.4	4.9	7.2	24	3.0	3.3	.98	1.2
12	2.5	2.9	2.0	e1.9	2.2	6.1	7.4	24	2.9	4.4	.98	2.1
13	2.5	3.2	2.1	e1.9	2.2	5.2	7.2	25	2.9	3.8	.88	1.5
14	2.5	3.3	2.2	e1.9	2.5	4.8	8.2	25	3.2	2.9	.79	3.0
15	2.4	3.2	2.0	e1.9	2.0	4.4	7.2	24	3.9	9.9	.79	4.8
16	2.5	3.0	2.1	e1.9	5.1	4.4	7.2	23	3.2	4.6	.88	2.5
17	2.5	2.8	2.1	e1.9	4.4	4.6	7.4	23	2.8	6.5	.88	2.5
18	2.5	2.5	2.1	e1.9	4.6	4.4	7.6	21	2.6	3.8	.88	3.8
19	2.5	2.5	2.1	e1.9	4.3	4.6	7.6	19	2.4	3.0	.79	4.1
20	2.5	2.5	2.0	e1.9	4.3	5.1	6.3	18	2.0	2.5	.79	4.8
21	2.4	2.4	2.0	e1.9	5.8	6.7	2.9	16	2.0	2.2	1.3	3.9
22	2.5	2.2	2.0	e1.9	4.6	9.0	2.2	15	2.0	2.0	1.4	2.9
23	.98	2.2	2.1	e1.9	4.3	9.2	5.4	13	2.0	1.9	1.3	2.2
24	2.6	1.9	2.0	e1.9	4.1	7.6	5.4	12	2.0	1.7	2.8	1.9
25	2.4	2.0	1.9	e1.9	4.1	6.3	5.2	12	2.0	1.7	2.8	1.6
26	2.2	2.4	1.9	e1.9	3.9	6.1	5.2	11	2.0	1.7	1.9	1.5
27	2.2	1.2	1.9	e1.9	3.9	6.9	5.2	9.9	2.0	1.7	2.0	1.4
28	2.4	1.1	1.7	e1.9	3.8	8.8	5.1	9.2	2.0	2.0	1.5	1.4
29	2.4	1.5	1.7	e1.9	3.8	9.2	5.2	8.4	2.0	1.6	1.7	1.3
30	2.2	2.2	1.7	e1.9	---	8.0	30	7.8	2.8	1.5	1.3	1.2
31	2.2	---	1.9	e1.9	---	9.6	---	7.2	---	1.5	1.1	---
TOTAL	78.28	70.3	62.0	59.0	92.1	173.6	216.8	637.5	95.4	104.7	39.90	59.08
MEAN	2.53	2.34	2.00	1.90	3.18	5.60	7.23	20.6	3.18	3.38	1.29	1.97
MAX	3.6	3.3	2.4	2.0	5.8	9.6	30	32	6.9	9.9	2.8	4.8
MIN	.98	1.1	1.7	1.9	1.9	3.5	2.2	7.2	2.0	1.5	.79	.70
AC-FT	155	139	123	117	183	344	430	1260	189	208	79	117

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1996, BY WATER YEAR (WY)

MEAN	6.21	4.99	2.73	2.42	2.64	8.46	13.8	25.0	19.4	7.67	3.94	3.84
MAX	49.9	46.4	8.82	5.82	6.53	32.0	45.7	66.3	47.5	22.5	9.25	17.3
(WY)	1987	1987	1987	1987	1986	1985	1989	1973	1995	1995	1986	1982
MIN	.000	1.00	.47	1.02	1.03	1.95	4.19	4.86	1.87	.87	.47	1.02
(WY)	1995	1990	1990	1990	1990	1977	1976	1977	1977	1984	1972	1972

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1971 - 1996
ANNUAL TOTAL	4552.58	1688.66	
ANNUAL MEAN	12.5	4.61	8.49
HIGHEST ANNUAL MEAN			18.6
LOWEST ANNUAL MEAN			2.34
HIGHEST DAILY MEAN	62	Jun 21	May 18 1973
LOWEST DAILY MEAN	.98	Oct 23	b Apr 14 1974
ANNUAL SEVEN-DAY MINIMUM	1.6	Jan 26	c Oct 1 1994
INSTANTANEOUS PEAK FLOW		Not determined	May 30 1979
ANNUAL RUNOFF (AC-FT)	9030	3350	6150
10 PERCENT EXCEEDS	35	8.7	27
50 PERCENT EXCEEDS	4.3	2.5	3.5
90 PERCENT EXCEEDS	1.9	1.3	1.4

e-Estimated.

a-Also occurred Sep 10.

b-Also occurred Oct 21, 1988 and Oct 1 to Nov 3, 1994.

c-Gage height not determined.

## SAN JUAN RIVER BASIN

## 09346000 NAVAJO RIVER AT EDITH, CO

LOCATION.--Lat  $37^{\circ}00'10''$ , long  $106^{\circ}54'25''$ , in NW $^{1/4}$ NW $^{1/4}$  sec.24, T.32 N., R.1 W., Archuleta County, Hydrologic Unit 14080101, on right bank 290 ft downstream from highway bridge, 0.2 mi southeast of Edith, 0.5 mi upstream from Colorado-New Mexico State line, and 1.3 mi upstream from Coyote Creek.

DRAINAGE AREA.--172 mi $^2$ .

PERIOD OF RECORD.--September 1912 to May 1996 (discontinued). Monthly or yearly discharge only for some periods, published in WSP 1313. Water-quality data available, October 1969 to September 1974. Sediment data available October 1970 to September 1974. Statistical summary computed for 1971 to 1995.

REVISED RECORDS.--WSP 1243: 1943, 1945. WSP 1633: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,033.00 ft above sea level, (levels by U.S. Bureau of Reclamation). Prior to Jan. 1, 1929, nonrecording gage at site 240 ft upstream, at different datum. June 2, 1935 to June 27, 1941, water-stage recorder at sites 200 and 240 ft upstream, at datum 2.0 ft, higher. June 28, 1941 to June 20, 1961, at site 50 ft downstream at present datum.

REMARKS.--Records good except those for flow over 650 ft $^3$ /s, which are fair, and estimated daily discharges, which are poor.

Diversions for irrigation of about 1,700 acres upstream from station. Highwater diversions upstream from station into Heron Reservoir through Azotea tunnel began in March 1971. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 5, 1911, exceeded all other observed floods at this location.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	56	44	e38	e38	42	63	125	---	---	---	---
2	87	60	e52	e35	e37	46	52	120	---	---	---	---
3	85	51	e50	e35	e32	41	49	103	---	---	---	---
4	83	49	36	e37	e34	50	52	112	---	---	---	---
5	79	53	43	e39	e37	48	51	105	---	---	---	---
6	75	51	e43	e37	e39	49	50	105	---	---	---	---
7	70	49	41	e35	e40	43	50	100	---	---	---	---
8	72	50	40	e37	e40	47	50	98	---	---	---	---
9	72	49	e43	e38	e40	49	52	97	---	---	---	---
10	67	63	e45	e39	e42	56	51	---	---	---	---	---
11	66	48	e45	e38	e44	65	50	---	---	---	---	---
12	62	52	e50	e37	e44	66	49	---	---	---	---	---
13	60	55	e51	e38	e42	55	50	---	---	---	---	---
14	58	60	e47	e39	e44	51	55	---	---	---	---	---
15	60	60	e40	e38	e48	52	52	---	---	---	---	---
16	58	55	43	e38	e51	58	51	---	---	---	---	---
17	58	49	47	e36	e52	60	49	---	---	---	---	---
18	58	66	46	e33	e54	54	49	---	---	---	---	---
19	58	43	45	e38	e53	55	49	---	---	---	---	---
20	58	55	40	e40	e59	60	48	---	---	---	---	---
21	57	54	40	e38	e70	65	46	---	---	---	---	---
22	54	55	e42	e38	81	54	46	---	---	---	---	---
23	49	51	e33	e36	67	53	47	---	---	---	---	---
24	53	50	e25	e36	60	51	47	---	---	---	---	---
25	55	49	e32	e35	57	49	49	---	---	---	---	---
26	54	53	e34	e33	55	52	48	---	---	---	---	---
27	49	48	e34	e33	42	51	45	---	---	---	---	---
28	48	56	e34	e36	47	54	43	---	---	---	---	---
29	47	45	e37	e38	47	53	44	---	---	---	---	---
30	50	46	e39	e38	---	52	69	---	---	---	---	---
31	49	---	e40	e38	---	56	---	---	---	---	---	---
TOTAL	1949	1581	1281	1144	1396	1637	1506	---	---	---	---	---
MEAN	62.9	52.7	41.3	36.9	48.1	52.8	50.2	---	---	---	---	---
MAX	98	66	52	40	81	66	69	---	---	---	---	---
MIN	47	43	25	33	32	41	43	---	---	---	---	---
AC-FT	3870	3140	2540	2270	2770	3250	2990	---	---	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1996, BY WATER YEAR (WY)												
MEAN	64.3	54.7	41.0	36.1	42.1	99.5	130	176	177	102	71.9	66.3
MAX	204	179	81.7	59.5	76.4	243	319	419	648	426	139	165
(WY)	1987	1987	1987	1985	1995	1995	1993	1973	1985	1995	1982	1982
MIN	33.4	29.8	18.1	17.8	21.6	31.1	38.3	78.9	42.7	37.5	26.4	26.9
(WY)	1979	1977	1977	1977	1977	1977	1977	1977	1977	1972	1972	1978

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR				FOR 1996 WATER YEAR*				WATER YEARS 1971 - 1995			
ANNUAL TOTAL				61356				a89.0			
ANNUAL MEAN				168				184			
HIGHEST ANNUAL MEAN								b1250			1985
LOWEST ANNUAL MEAN								c8.0			1977
HIGHEST DAILY MEAN		1240	Jun 21		125	May 1		d,f1800			1993
LOWEST DAILY MEAN		25	Dec 24	e25	Dec 24			g5.53			1993
ANNUAL SEVEN-DAY MINIMUM		33	Dec 23					h5.53			
INSTANTANEOUS PEAK FLOW					168	Nov 18		64440			
INSTANTANEOUS PEAK STAGE					g3.39	Nov 18					
ANNUAL RUNOFF (AC-FT)		121700									
10 PERCENT EXCEEDS		397									
50 PERCENT EXCEEDS		100									
90 PERCENT EXCEEDS		42									

e-Estimated.

\*During period of record.

a-Average discharge for 58 years (water years 1913-70), 155 ft $^3$ /s; 112300 acre-ft/yr, prior to diversions through Azotea tunnel.

b-Maximum daily discharge for period of record, 2830 ft $^3$ /s, Jun 15, 1921.

c-Also occurred Sep 25, 1953.

d-From rating curve extended above 1620 ft $^3$ /s.

f-Maximum discharge and stage for period of record, 2840 ft $^3$ /s, Apr 23, 1942, gage height, 6.55 ft, from rating curve extended above 1100 ft $^3$ /s.

g-Maximum gage height, 4.08 ft, Jan 3, backwater from ice.

h-Maximum gage height for statistical period, 5.76 ft, Dec 4, 1978, backwater from ice.

## 09346400 SAN JUAN RIVER NEAR CARRACAS, CO

LOCATION.--Lat 37°00'49", long 107°18'42", in SE<sup>1/4</sup>SW<sup>1/4</sup> sec.17, T.32 N., R.4 W., Archuleta County, Hydrologic Unit 14080101, on right bank just upstream from flow line of Navajo Reservoir, 3 mi northwest of Carracas, 7.2 mi upstream from Piedra River, and at mile 332.8.

DRAINAGE AREA.--1,230 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--Streamflow records, October 1961 to current year. Water-quality data available, July 1969 to August 1973. Sediment data available, August 1973. Statistical summary computed for 1971 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 6,090 ft above sea level, from river-profile map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Diversions for irrigation of about 11,000 acres upstream from station. Highwater diversions upstream from station into Rio Grande basin through Azotea tunnel (station 08284160) began in March 1971. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods occurred Sept. 5 or 6, 1909; Oct. 5, 1911; June 29, 1927.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	402	145	e150	e120	e135	182	227	e700	453	374	124	94
2	328	165	e150	e115	e135	163	296	e800	446	282	119	90
3	292	169	e140	e115	e115	162	302	e960	483	242	118	84
4	261	141	e140	e125	e120	182	279	e1150	453	192	121	92
5	242	139	e140	e130	e130	189	279	1310	434	174	124	92
6	227	141	e135	e125	e145	e190	275	1460	410	161	111	88
7	224	144	e130	e120	e145	e180	270	1480	439	131	94	90
8	216	144	127	e120	e145	e175	307	1310	394	148	90	90
9	208	144	128	e130	e150	e180	369	1350	360	208	88	74
10	208	156	119	e135	e155	e190	456	1300	364	251	92	72
11	202	177	126	e125	e165	e195	440	1470	324	281	94	74
12	197	141	142	e125	e160	e205	405	1410	289	246	82	100
13	190	156	156	e130	e160	e215	382	1520	270	280	72	110
14	186	172	165	e135	e175	e210	381	1460	270	191	66	168
15	182	175	162	e135	186	e205	344	1580	326	188	64	350
16	179	172	130	e135	204	e190	333	1640	369	152	66	281
17	176	166	121	e130	231	e195	333	1720	314	183	64	232
18	172	156	146	e115	239	e200	323	1670	271	259	67	235
19	172	159	132	e130	240	e200	303	1530	234	246	69	311
20	169	150	135	e140	232	e200	279	1480	212	166	63	249
21	164	148	135	e130	306	e200	279	1320	208	153	67	224
22	159	147	e130	e135	408	e210	257	1180	243	122	81	e225
23	153	141	e115	e135	300	e225	261	1110	316	141	145	e220
24	138	141	e80	e130	241	e240	359	886	243	133	261	e210
25	141	127	e95	e125	228	e235	548	873	212	128	341	e210
26	146	132	e110	e120	220	e225	788	775	201	129	226	e210
27	147	132	e110	e115	187	e210	947	666	277	132	174	e210
28	144	e100	e110	e130	172	e200	1090	533	385	121	223	e205
29	138	e110	e115	e140	186	e195	788	485	349	124	171	e195
30	138	e130	e125	e140	---	200	e730	477	324	152	141	e185
31	138	---	e130	e140	---	208	---	477	---	141	115	---
TOTAL	6039	4420	4029	3975	5615	6156	12630	36082	9873	5831	3733	5070
MEAN	195	147	130	128	194	199	421	1164	329	188	120	169
MAX	402	177	165	140	408	240	1090	1720	483	374	341	350
MIN	138	100	80	115	115	162	227	477	201	121	63	72
AC-FT	11980	8770	7990	7880	11140	12210	25050	71570	19580	11570	7400	10060

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1996, BY WATER YEAR (WY)

MEAN	314	248	176	159	202	615	1122	1767	1874	690	330	288
MAX	932	983	406	296	481	1369	2524	3195	4080	2427	733	880
(WY)	1987	1987	1987	1987	1986	1995	1979	1973	1985	1995	1993	1982
MIN	106	104	72.9	74.7	85.0	134	233	395	251	132	69.0	61.2
(WY)	1979	1990	1990	1990	1990	1977	1977	1977	1977	1972	1972	1978

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1971 - 1996
ANNUAL TOTAL	354184	103453	
ANNUAL MEAN	970	283	a 649
HIGHEST ANNUAL MEAN			1191
LOWEST ANNUAL MEAN			b 200
HIGHEST DAILY MEAN	5810	Mar 6	6700 Mar 12 1985
LOWEST DAILY MEAN	80	Dec 24	c 28 Sep 14 1974
ANNUAL SEVEN-DAY MINIMUM	105	Dec 23	d 39 Sep 14 1978
INSTANTANEOUS PEAK FLOW		2040 May 17	d 8590 Mar 6 1995
INSTANTANEOUS PEAK STAGE		4.52 May 17	f 8.10 Mar 6 1995
ANNUAL RUNOFF (AC-FT)	702500	205200	470300
10 PERCENT EXCEEDS	2620	479	1750
50 PERCENT EXCEEDS	480	178	287
90 PERCENT EXCEEDS	141	111	110

e-Estimated.

a-Average discharge for 9 years (water years 1962-70), 632 ft<sup>3</sup>/s; 457900 acre-ft/yr, prior to completion of Azotea tunnel.

b-Also maximum daily discharge for period of record.

c-Minimum daily discharge for period of record, about 5 ft<sup>3</sup>/s, Dec 10, 1961, result of freezeup.

d-Maximum discharge and stage for period of record, 9730 ft<sup>3</sup>/s, Sep 6, 1970, gage height, 8.34 ft, from rating curve extended above 6000 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow.

f-Maximum gage height for statistical period, and period of record, 9.63 ft, Jan 4, 1994, backwater from ice.

## SAN JUAN RIVER BASIN

## 09349800 PIEDRA RIVER NEAR ARBOLES, CO

LOCATION.--Lat 37°05'18", long 107°23'50", in NE<sup>1/4</sup>SW<sup>1/4</sup> sec.21, T.33 N., R.5 W., Archuleta County, Hydrologic Unit 14080102, on left bank 2.5 mi upstream from Navajo Reservoir, 3.0 mi downstream from Ignacio Creek, and 4.6 mi northeast of Arboles Post Office.

DRAINAGE AREA.--629 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1962 to current year. Gage operated 1895-99 and 1910-27 at site 7.5 mi downstream at elevation 6,000 ft. Low-flow records probably not equivalent. Water-quality data available, July 1969 to August 1973, December 1988 to May 1989.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 6,147.52 ft above sea level, Colorado State Highway Department benchmark.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Diversions for irrigation of about 2,800 acres upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods occurred Sept. 5 or 6, 1909, and Oct. 5, 1911.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	203	78	60	e54	e54	e74	115	521	178	276	e58	75
2	178	80	67	e52	e52	e63	150	558	170	231	e56	66
3	160	80	63	e52	e46	e68	171	617	154	208	e58	59
4	144	71	64	e54	e48	e73	165	698	e152	180	e60	54
5	137	75	66	e57	e53	e76	159	801	e151	178	e59	50
6	127	73	64	e53	e56	e73	159	841	e150	155	e52	51
7	118	75	59	e53	e56	e63	162	912	e148	148	e46	54
8	121	75	59	e54	e56	e69	190	814	e147	133	e43	59
9	118	73	54	e54	e57	e75	240	789	e143	134	e44	60
10	113	82	48	e57	e59	e84	319	747	e138	154	e47	56
11	106	84	49	e54	e64	e93	330	746	e125	171	e43	57
12	106	71	53	e54	e62	e105	290	834	113	144	e39	55
13	104	80	56	e56	e59	e110	285	870	106	142	e37	78
14	103	80	e60	e56	e64	e98	257	824	104	141	e36	97
15	97	80	e52	e56	e70	e88	234	795	138	119	e35	158
16	93	80	e44	e55	e75	e85	219	789	174	97	e35	174
17	89	77	47	e53	e78	e81	226	834	151	111	e36	145
18	89	78	46	e50	e80	e74	219	767	129	143	e34	139
19	89	75	48	e53	e78	e76	201	710	116	116	e33	171
20	89	78	52	e58	e80	e80	188	680	104	103	e35	162
21	85	77	50	e54	e93	e95	181	606	102	93	e50	167
22	81	e72	e50	e55	e115	e110	169	518	133	86	e68	e165
23	77	e72	e40	e56	e140	e130	177	432	190	75	e64	e160
24	71	e68	e38	e53	e105	e150	239	380	172	63	e120	e150
25	73	e66	e44	e50	e93	e130	399	331	143	e60	102	e140
26	75	e68	e47	e48	e94	e105	557	303	145	e67	108	e140
27	75	e72	e50	e48	e70	e100	670	286	229	e65	100	e125
28	75	52	e50	e53	e61	99	744	246	338	e61	123	e110
29	77	46	e52	e55	e62	108	557	226	297	e76	109	e105
30	77	55	e55	e53	---	111	482	205	242	e82	91	e97
31	76	---	e58	e53	---	102	---	188	---	e66	83	---
TOTAL	3226	2193	1645	1663	2080	2848	8454	18868	4782	3878	1904	3179
MEAN	104	73.1	53.1	53.6	71.7	91.9	282	609	159	125	61.4	106
MAX	203	84	67	58	140	150	744	912	338	276	123	174
MIN	71	46	38	48	46	63	115	188	102	60	33	50
AC-FT	6400	4350	3260	3300	4130	5650	16770	37420	9490	7690	3780	6310

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1996, BY WATER YEAR (WY)

MEAN	175	127	90.9	75.8	95.2	320	890	1301	1063	352	207	206
MAX	618	517	257	153	244	895	2126	2926	2526	1133	551	943
(WY)	1973	1987	1987	1987	1986	1995	1979	1979	1979	1975	1968	1970
MIN	51.2	48.4	31.2	31.2	34.7	47.4	125	168	121	69.8	37.0	35.3

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1963 - 1996

ANNUAL TOTAL	202181		54720									
ANNUAL MEAN	554		150							409		
HIGHEST ANNUAL MEAN										822		
LOWEST ANNUAL MEAN										94.0		
HIGHEST DAILY MEAN	3290	Jun 18	912	May 7						5360	Sep 6	1970
LOWEST DAILY MEAN	e38	Dec 24	e33	Aug 19						19	Nov 29	1989
ANNUAL SEVEN-DAY MINIMUM	46	Dec 21	35	Aug 14						26	Dec 11	1989
INSTANTANEOUS PEAK FLOW			992	May 17						a8370	Sep 6	1970
INSTANTANEOUS PEAK STAGE			2.76	May 17						b6.38	Sep 6	1970
ANNUAL RUNOFF (AC-FT)	401000		108500							296400		
10 PERCENT EXCEEDS	1460		292							1200		
50 PERCENT EXCEEDS	201		83							150		
90 PERCENT EXCEEDS	68		50							54		

e-Estimated.

a-From rating curve extended above 4,400 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow.

b-Gage height, 6.38 ft, recorded, 7.55 ft, from floodmarks.

**09352900 VALLECITO CREEK NEAR BAYFIELD, CO**  
**(Hydrologic Bench-Mark Station)**

LOCATION.--Lat  $37^{\circ}28'39''$ , long  $107^{\circ}32'35''$ , in NE $^{1/4}$ NW $^{1/4}$  sec.16, T.37 N., R.6 W., La Plata County, Hydrologic Unit 14080101, on right bank 60 ft upstream from Fall Creek, 0.8 mi downstream from Bear Creek, 6.7 mi north of Vallecito Dam, and 18 mi north of Bayfield.

DRAINAGE AREA.--72.1 mi $^2$ .

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 7,906.08 ft above sea level.

REMARKS.--Records fair except for estimated daily discharges, which are poor. No diversion upstream from station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods occurred in October 1911 and June 1927.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	120	26	e21	e18	e19	e30	e60	293	195	221	54	44
2	109	25	e20	e16	e19	e25	e100	331	239	175	52	41
3	100	20	e20	e16	e18	e28	e94	367	271	143	52	38
4	92	21	e20	e17	e17	e30	e84	409	283	130	54	35
5	80	20	e20	e17	e18	e30	e80	469	287	119	47	33
6	72	21	e20	e18	e20	e30	e78	505	290	113	41	34
7	68	20	e20	e17	e20	e26	e86	495	286	106	38	34
8	62	20	e20	e17	e21	e29	e100	495	277	98	39	30
9	58	20	e18	e18	e21	e31	e120	495	256	100	46	27
10	55	20	e17	e18	e22	e36	e150	465	221	108	44	25
11	53	20	e18	e18	e24	e42	e160	550	219	98	37	26
12	51	24	e18	e18	e23	e45	e130	616	209	97	34	70
13	49	23	e20	e18	e23	e47	e140	596	187	94	31	81
14	46	22	e20	e19	e23	e40	e120	568	214	82	29	99
15	44	21	e18	e19	e26	e36	e105	596	196	76	28	123
16	42	21	e16	e19	e28	e35	e105	633	176	72	27	115
17	40	20	e20	e18	e29	e35	e110	619	164	70	28	115
18	39	19	e18	e17	e30	e31	e105	593	152	65	28	120
19	37	20	e18	e16	e30	e32	e100	570	142	62	25	111
20	34	19	e18	e19	e33	e34	e90	524	136	57	25	111
21	33	19	e18	e19	e51	e40	e84	476	177	54	28	106
22	32	19	e18	e19	e51	e49	e76	446	307	50	30	105
23	26	18	e17	e19	e50	e62	e90	377	196	48	37	99
24	29	17	e14	e19	e40	e58	e150	260	147	45	54	91
25	27	e17	e10	e18	e38	e47	e260	198	124	42	83	84
26	27	e15	e13	e18	e35	e43	e270	171	115	40	71	80
27	26	e13	e15	e17	e27	e43	304	151	206	38	64	70
28	25	e12	e15	e18	e27	e45	294	152	323	51	64	64
29	25	e15	e15	e19	e26	e49	223	143	246	87	70	60
30	24	e19	e16	e19	---	e47	230	169	207	75	57	56
31	24	---	e17	e19	---	e49	---	168	---	61	50	---
TOTAL	1549	586	548	557	809	1204	4098	12900	6448	2677	1367	2127
MEAN	50.0	19.5	17.7	18.0	27.9	38.8	137	416	215	86.4	44.1	70.9
MAX	120	26	21	19	51	62	304	633	323	221	83	123
MIN	24	12	10	16	17	25	60	143	115	38	25	25
AC-FT	3070	1160	1090	1100	1600	2390	8130	25590	12790	5310	2710	4220

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1996, BY WATER YEAR (WY)

MEAN	78.7	43.9	27.4	21.3	20.4	34.1	113	398	529	248	131	115
MAX	280	104	52.0	42.5	44.5	80.8	226	629	927	596	233	455
(WY)	1973	1987	1986	1986	1986	1989	1989	1993	1980	1995	1968	1970
MIN	22.3	16.7	9.89	9.51	8.42	9.11	40.3	138	152	80.5	44.1	25.1
(WY)	1979	1976	1977	1977	1977	1977	1964	1977	1977	1972	1996	1978

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1963 - 1996
ANNUAL TOTAL	71809	34870	
ANNUAL MEAN	197	95.3	
HIGHEST ANNUAL MEAN			147
LOWEST ANNUAL MEAN			226
HIGHEST DAILY MEAN	1350	Jun 15	63.3
LOWEST DAILY MEAN	e10	Dec 25	1973
ANNUAL SEVEN-DAY MINIMUM	14	Dec 24	1977
INSTANTANEOUS PEAK FLOW		792 May 16	a7050
INSTANTANEOUS PEAK STAGE		2.59 May 16	b6.51
ANNUAL RUNOFF (AC-FT)	142400	69160	106400
10 PERCENT EXCEEDS	632	257	417
50 PERCENT EXCEEDS	73	43	61
90 PERCENT EXCEEDS	20	18	18

e-Estimated.

a-From rating curve extended above 1400 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow.

b-Maximum gage height, 6.51 ft, from water-stage recorder, 6.76 ft, from floodmarks.

## SAN JUAN RIVER BASIN

**09352900 VALLECITO CREEK NEAR BAYFIELD, CO--Continued**  
**(Hydrologic Bench-Mark Station)**

**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Chemical analyses: October 1963 to September 1968; October 1969 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: November 1962 to September 1982.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 20.0°C July 10, 1974; minimum, 0.0°C on many days during winter months each year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR-BID- ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS TOTAL (MG/L) DIS-SOLVED AS (MG/L CACO3)	CALCIUM	
NOV 28...	0955	7.7	83	7.6	0.0	0.2	10.6	K2	K1	37	11	
JUN 04...	1035	251	34	7.0	5.0	0.2	9.5	<1	K1	14	4.0	
		MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-a ADSORP-TION RATIO	BONATE WATER DIS IT FIELD (MG/L AS HCO3)	LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS-SOLVED (MG/L AS CL)	FLUO- RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, AT 180 DEG. C DIS-SOLVED (MG/L)
NOV 28...	2.3	1.1	0.1	0.6	33	27	7.2	0.2	--	4.3	47	
JUN 04...	1.0	0.4	0.0	0.3	10	9	4.8	0.2	0.2	2.3	43	
		SOLIDS, SUM OF CONSTI- TUENTS, DIS-SOLVED (MG/L AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + DIS-SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC DIS-SOLVED (MG/L AS N)	PHOS- PHORUS DIS-SOLVED (MG/L AS P)	PHOS- PHORUS DIS-SOLVED (MG/L AS P)	PHOS- PHORUS DIS-SOLVED (MG/L AS P)	PHOS- PHORUS DIS-SOLVED (MG/L AS P)	
NOV 28...	44	0.06	0.98	<0.01	0.14	<0.015	<0.2	<0.01	<0.01	<0.01	<0.01	
JUN 04...	19	0.06	29.1	<0.01	0.13	0.02	<0.2	0.01	<0.01	<0.01	<0.01	
		ALUM-INUM, DIS-SOLVED (UG/L AS AL)	BARIUM, DIS-SOLVED (UG/L AS BA)	COBALT, DIS-SOLVED (UG/L AS CO)	IRON, DIS-SOLVED (UG/L AS FE)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA- NESE, DIS-SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE- NIUM, DIS-SOLVED (UG/L AS SE)	STRON- TIUM, DIS-SOLVED (UG/L AS SR)	VANA- DIUM, DIS-SOLVED (UG/L AS V)
NOV 28...	<10	15	<3	5	<4	<1	<10	<1	<1	<1	31	<6
JUN 04...	40	7	<3	3	<4	13	<10	2	<1	<1	12	<6

a-Field dissolved bicarbonate, determined by incremental titration method.

b-Field total dissolved alkalinity, determined by incremental titration method.

K-Based on non-ideal colony count.

**09352900 VALLECITO CREEK NEAR BAYFIELD, CO--Continued**  
**(Hydrologic Bench-Mark Station)**

RADIOCHEMICAL ANALYSIS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	RADIUM 226, DIS- SOLVED, RADON	URANIUM NATURAL DIS- SOLVED
		METHOD (PCU/L)	(UG/L AS U)

NOV 28...	0955	0.06	0.43
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MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
OCT 10...	1520	56	57	6.5	JUL 16...	1600	67	50	12.5
APR 26...	1130	219	54	3.0					

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
NOV 28...	0955	7.7	<1	--	JUN 04...	1035	251	1	0.54

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
NOV 10...	1130	66	3	0.53	MAY 30...	1145	217	2	1.2
MAR 22...	1330	103	4	1.1	SEP 05...	1440	96	1	0.26

**09353000 VALLECITO RESERVOIR NEAR BAYFIELD, CO**

LOCATION.--Lat  $37^{\circ}23'00''$ , long  $107^{\circ}34'30''$ , in SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.18, T.36 N., R.6 W., La Plata County, Hydrologic Unit 14080101, in gatehouse above outlet gates at Vallecito Dam on Los Pinos (Pine) River, 300 ft left of spillway, 0.4 mi upstream from Jack Creek, and 11 mi northeast of Bayfield.

DRAINAGE AREA.--270 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--April 1941 to current year.

REVISED RECORDS.--WSP 959: 1941. WSP 1513: 1956.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 7,580 ft above sea level (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above sea level.

REMARKS.--Reservoir is formed by earth and rockfill dam; dam completed in March 1941. Capacity of reservoir, 125,640 acre-ft between elevations 7,580 ft, sill of outlet gate, and 7,665 ft, top of spillway gates. Dead storage, 3,395 acre-ft. Figures given are usable contents. Reservoir is used to store water for irrigation in Los Pinos (Pine) River basin and provide hydroelectric power.

COOPERATION.--Records provided by Pine River Irrigation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 128,200 acre-ft, July 27, 1957, elevation, 7,665.72 ft; minimum, 1,520 acre-ft, Oct. 24-25, 1944, elevation, 7,584.10 ft. No usable storage prior to April 1941.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 104,880 acre-ft, May 22, elevation, 7,657.14 ft; minimum, 24,700 acre-ft, Sept. 16, elevation, 7,616.38 ft.

## MONTHEND ELEVATION AND CONTENTS, AT 0900, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30. . . . .	7,646.51	78,930	
Oct. 31. . . . .	7,643.13	71,260	-7,670
Nov. 30. . . . .	7,644.18	73,610	+2,350
Dec. 31. . . . .	7,644.86	75,140	+1,530
CAL YR 1995. . . . .			+2,870
Jan. 31. . . . .	7,645.44	76,460	+1,320
Feb. 29. . . . .	7,646.14	78,070	+1,610
Mar. 31. . . . .	7,646.05	77,860	-210
Apr. 30. . . . .	7,649.29	85,460	+7,600
May 31. . . . .	7,654.88	99,150	+13,690
June 30. . . . .	7,646.82	79,640	-19,510
July 31. . . . .	7,636.59	57,400	-22,240
Aug. 31. . . . .	7,621.90	31,940	-25,460
Sept. 30. . . . .	7,618.96	27,930	-4,010
WTR YR 1996. . . . .			-51,000

## 09354500 LOS PINOS RIVER AT LA BOCA, CO

LOCATION.--Lat 37°00'34", long 107°35'56", in NE<sup>1/4</sup>NW<sup>1/4</sup> sec.22, T.32 N., R.7 W., La Plata County, Hydrologic Unit 14080101, on downstream end of right abutment of the Denver & Rio Grande Western Railroad Co. bridge, at southeast edge of La Boca, 0.5 mi upstream from Spring Creek, and 2 mi upstream from maximum elevation of Navajo Reservoir.

DRAINAGE AREA.--510 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--October 1950 to current year. Monthly discharge only for some periods, published in WSP 1733. Water-quality data available, July 1969 to August 1973, January 1988 to September 1991.

GAGE.--Water-stage recorder. Datum of gage is 6,143.59 ft above sea level.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow regulated by Vallecito Reservoir (station 09353000) 24 mi upstream since April 1941. Diversions for irrigation of about 33,000 acres upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood on Oct. 5, 1911 has not yet been exceeded.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e330	77	e45	e53	e52	105	e53	28	107	254	101	e92
2	e330	64	45	e49	e50	107	50	25	107	179	107	e80
3	e320	56	45	e49	e47	105	50	30	112	161	125	e74
4	e200	55	e44	e53	e44	107	53	51	110	139	127	e65
5	e200	53	43	e55	e48	116	56	67	105	128	119	e60
6	e180	53	43	e52	e53	125	52	59	110	123	118	e59
7	e180	49	e44	e50	e52	132	52	60	110	110	108	e62
8	e180	49	e44	e50	e52	130	51	67	108	127	97	e66
9	e160	49	e43	e48	e52	115	49	73	120	380	91	e70
10	e135	56	e43	e47	e54	105	54	75	122	192	107	e67
11	115	55	e44	e47	56	99	56	73	118	128	97	e66
12	113	52	43	e47	60	93	55	76	117	134	93	e66
13	115	49	46	e47	62	93	60	89	115	179	89	e78
14	120	48	e48	e47	63	99	65	93	142	167	85	e105
15	113	46	e49	e48	69	154	43	97	158	161	89	e150
16	112	50	49	e48	69	164	36	97	138	148	107	e200
17	95	51	e50	e51	66	158	37	91	135	161	107	e180
18	89	51	e48	e48	67	104	37	91	123	145	107	e165
19	87	49	e47	e48	61	95	29	89	110	175	115	e190
20	79	48	e46	e47	60	97	22	101	108	146	108	e200
21	129	43	44	e46	75	93	23	101	125	130	110	e190
22	136	47	e43	e47	71	91	15	99	172	128	112	e190
23	101	48	e41	e48	64	94	12	93	141	113	120	e185
24	93	45	e45	e47	56	97	63	105	133	105	182	e180
25	87	43	e50	e47	55	97	72	120	132	99	193	e170
26	81	45	e50	e44	60	93	30	120	137	117	144	e165
27	81	43	e46	e43	56	93	26	125	226	122	135	e150
28	81	e43	e48	e46	71	68	28	120	323	115	128	e135
29	81	e45	e50	e50	91	e60	32	120	218	115	120	e125
30	81	e45	e54	e51	---	e57	27	110	171	110	e115	e110
31	81	---	e54	e52	---	e55	---	108	---	101	e105	---
TOTAL	4285	1507	1434	1505	1736	3201	1288	2653	4153	4592	3561	3695
MEAN	138	50.2	46.3	48.5	59.9	103	42.9	85.6	138	148	115	123
MAX	330	77	54	55	91	164	72	125	323	380	193	200
MIN	79	43	41	43	44	55	12	25	105	99	85	59
AC-FT	8500	2990	2840	2990	3440	6350	2550	5260	8240	9110	7060	7330

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1996, BY WATER YEAR (WY)

MEAN	194	138	104	76.1	101	215	350	443	505	308	214	203
MAX	672	709	396	182	362	972	1339	1719	1555	1381	878	706
(WY)	1987	1987	1983	1985	1993	1993	1979	1958	1979	1957	1957	1970
MIN	47.9	32.1	33.8	33.9	38.6	45.1	22.8	44.3	74.5	81.6	80.4	58.3

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1951 - 1996

ANNUAL TOTAL	132781	33610		
ANNUAL MEAN	364	91.8		
HIGHEST ANNUAL MEAN			242	
LOWEST ANNUAL MEAN			582	1973
HIGHEST DAILY MEAN	2510	Mar 6	77.4	1959
LOWEST DAILY MEAN	e41	Dec 23	6.1	May 1 1977
ANNUAL SEVEN-DAY MINIMUM	43	Dec 4	8.3	Apr 30 1977
INSTANTANEOUS PEAK FLOW		610 Jul 9	a6400	Jul 27 1957
INSTANTANEOUS PEAK STAGE		4.97 Jul 9	b8.95	Jul 27 1957
ANNUAL RUNOFF (AC-FT)	263400	66670	175000	
10 PERCENT EXCEEDS	907	161	538	
50 PERCENT EXCEEDS	177	81	132	
90 PERCENT EXCEEDS	48	45	50	

e-Estimated.

a-From rating curve extended above 5100 ft<sup>3</sup>/s.

b-Maximum gage height, 9.00 ft, backwater from ice, sometime during period, Dec 23, 1990 to Jan 17, 1991.

## SAN JUAN RIVER BASIN

## 09355000 SPRING CREEK AT LA BOCA, CO

LOCATION.--Lat 37°00'40", long 107°35'47", in SE<sup>1/4</sup>SW<sup>1/4</sup> sec.15, T.32 N., R.7 W., La Plata County, Hydrologic Unit 14080101, on right bank in an excavated channel, 0.2 mi upstream from mouth, and 0.2 mi east of La Boca.

DRAINAGE AREA.--58 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--October 1950 to current year. Monthly discharge only for some periods, published in WSP 1733. Water-quality data available May 1974, January 1988 to September 1991.

GAGE.--Water-stage recorder. Elevation of gage is 6,160 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Part of flow is return waste from irrigation. Nearly all irrigation in this basin is water diverted from Los Pinos River which causes a considerable change in the annual pattern and natural flow. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	5.5	e3.3	e2.6	e2.2	e2.3	2.0	e17	53	156	108	135
2	65	6.7	e3.3	e2.5	e2.1	e2.4	2.0	e19	52	91	120	138
3	60	5.1	e3.2	e2.4	e2.0	e2.4	2.0	e21	51	87	138	142
4	48	4.7	2.7	e2.5	e1.8	e2.4	2.0	e24	48	85	122	e140
5	46	4.7	e3.0	e2.6	e2.0	e2.5	2.3	e26	43	85	101	e122
6	48	4.7	e3.1	e2.4	e2.2	e2.5	2.3	e28	40	88	109	156
7	53	4.7	3.0	e2.3	e2.1	e2.4	2.0	e28	39	85	116	150
8	53	4.7	e3.0	e2.4	e2.1	e2.3	2.3	e28	40	91	115	e138
9	47	4.7	e3.0	e2.2	e2.1	e2.4	2.0	e29	46	132	118	e118
10	46	5.8	e3.0	e2.2	e2.2	e2.5	2.0	e28	46	118	131	e117
11	48	5.9	e3.0	e2.2	e2.2	e2.6	2.3	e29	45	103	124	e120
12	48	4.4	e2.9	e2.1	e2.2	e2.7	2.0	e31	45	108	122	e118
13	45	4.3	e3.0	e2.1	e2.2	e2.8	3.0	e32	49	130	116	166
14	42	4.7	e3.0	e2.1	e2.2	e2.7	3.0	e33	54	129	113	222
15	43	4.4	e2.9	e2.1	e2.3	e2.6	2.3	e34	63	125	116	154
16	43	4.0	e2.8	e2.2	e2.3	e2.5	21	e35	58	125	125	32
17	38	4.0	e2.9	e2.3	e2.3	e2.5	3.7	e35	57	134	127	28
18	39	4.0	e2.9	e2.2	e2.3	e2.5	3.3	34	55	126	131	27
19	38	4.3	e2.8	e2.1	e2.3	e2.5	3.3	35	56	134	122	e27
20	39	4.0	2.7	e2.1	e2.4	e2.5	3.0	38	58	126	125	e25
21	43	3.7	e2.6	e2.1	e2.5	e2.5	4.0	40	61	e112	127	e21
22	22	4.0	e2.6	e2.1	e2.6	e2.7	3.3	46	85	e105	134	e18
23	7.4	3.7	e2.4	e2.1	e2.5	e2.8	3.0	43	71	e102	135	e16
24	5.9	3.3	e2.1	e2.0	e2.5	e2.9	5.0	43	68	e102	221	e14
25	5.5	e3.2	e2.3	e2.1	e2.4	e2.8	12	48	64	e106	201	e12
26	5.5	e3.3	e2.5	e1.9	e2.4	e2.7	e19	52	69	107	157	e10
27	5.5	e3.2	e2.4	e1.9	e2.3	e2.6	e22	51	141	104	152	e9.8
28	4.7	e3.2	e2.3	e2.0	e2.2	e2.5	e23	48	157	111	144	e9.1
29	5.1	e3.3	e2.4	e2.1	e2.2	e2.4	e18	52	101	109	146	e9.0
30	5.1	e3.3	e2.5	e2.2	---	2.3	e15	52	102	109	142	e9.3
31	4.7	---	e2.7	e2.2	---	2.0	---	52	---	104	140	---
TOTAL	1071.4	129.5	86.3	68.3	65.1	78.2	192.1	1111	1917	3429	4098	2403.2
MEAN	34.6	4.32	2.78	2.20	2.24	2.52	6.40	35.8	63.9	111	132	80.1
MAX	68	6.7	3.3	2.6	2.6	2.9	23	52	157	156	221	222
MIN	4.7	3.2	2.1	1.9	1.8	2.0	2.0	17	39	85	101	9.0
AC-FT	2130	257	171	135	129	155	381	2200	3800	6800	8130	4770

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1996, BY WATER YEAR (WY)

MEAN	35.3	10.8	5.50	4.70	10.3	19.0	13.7	39.6	57.7	67.2	67.5	59.4
MAX	87.9	29.6	20.4	19.3	54.8	89.7	41.1	64.5	79.3	111	132	92.0
(WY)	1973	1956	1985	1980	1980	1979	1979	1992	1986	1996	1996	1983
MIN	5.25	3.68	1.74	2.04	2.24	2.52	3.77	15.7	24.4	21.2	32.1	26.5
(WY)	1978	1978	1960	1973	1996	1996	1978	1978	1977	1977	1977	1951

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1951 - 1996

ANNUAL TOTAL	14120.4	14649.1										
ANNUAL MEAN	38.7	40.0										
HIGHEST ANNUAL MEAN												
LOWEST ANNUAL MEAN												
HIGHEST DAILY MEAN	918	Mar 6	222	Sep 14	918	Mar 6	1995					
LOWEST DAILY MEAN	e2.1	Dec 24	e1.8	Feb 4	1.0	Feb 25	1951					
ANNUAL SEVEN-DAY MINIMUM	2.3	Dec 23	2.0	Jan 22	1.0	Dec 7	1959					
INSTANTANEOUS PEAK FLOW			405	Sep 14	a1980	Sep 6	1970					
INSTANTANEOUS PEAK STAGE			2.48	Sep 14	b4.62	Sep 6	1970					
ANNUAL RUNOFF (AC-FT)	28010	29060	23890									
10 PERCENT EXCEEDS	75	125	72									
50 PERCENT EXCEEDS	25	7.0	23									
90 PERCENT EXCEEDS	3.3	2.2	3.2									

e-Estimated.

a-From rating curve extended above 160 ft<sup>3</sup>/s, on the basis of field estimate of peak flow.

b-Maximum gage height, 5.98 ft, Mar 9, 1960, backwater from ice.

## 09358000 ANIMAS RIVER AT SILVERTON, CO

LOCATION.--Lat 37°48'40", long 107°39'31", in SE<sup>1/4</sup>NW<sup>1/4</sup> sec.17, T.41 N., R.7 W., San Juan County, Hydrologic Unit 14080104, on right bank at southeast end of 14th Street, 800 feet upstream from Cement Creek, in the city of Silverton.

DRAINAGE AREA.--70.6 mi<sup>2</sup>.

PERIOD OF RECORD.--June to October 1903 (staff gage) monthly discharge only. Published in WSP 1313. October 1991 to September 1993. October 1994 to current year.

REVISED RECORDS.--WDR CO 92-2: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 9,290 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. No diversions upstream for irrigation in Animas River drainage. Natural regulation by many lakes upstream from station. Mineral Point Ditch exports 100 to 400 acre feet of water per year from headwaters of Animas River to Uncompahgre River drainage. City of Silverton diverts some water from Boulder Creek (tributary) for municipal use. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1884, was probably that of October 5, 1911.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77	43	e31	e30	e28	e34	139	270	225	60	38	
2	70	40	e31	e28	e29	41	167	384	216	59	38	
3	68	e40	e31	e28	e28	41	194	492	203	63	38	
4	63	e38	e32	e29	e28	38	235	555	196	61	36	
5	59	e37	e32	e30	e27	e28	37	289	596	184	56	36
6	55	36	e32	e30	e27	e26	40	333	658	177	53	37
7	59	37	e31	e28	e28	e26	46	339	687	168	51	37
8	58	36	e30	e28	e26	53	354	652	162	50	35	
9	57	36	e29	e29	e30	e27	69	385	579	158	49	34
10	56	e37	e30	e30	e28	75	346	529	161	46	33	
11	57	e36	e32	e31	e31	73	442	470	148	44	34	
12	56	e36	e30	e31	e32	64	613	404	136	43	48	
13	55	35	e31	e30	e32	63	702	393	124	41	48	
14	52	36	e31	e30	e32	e33	55	677	501	115	39	63
15	53	e35	e29	e31	e32	55	752	410	111	37	73	
16	51	e34	e25	e31	e32	e29	55	840	372	110	36	67
17	49	e34	e25	e30	e33	e29	54	856	404	108	35	68
18	48	e33	e25	e29	e33	e29	52	848	395	107	34	68
19	47	e33	e25	e29	e34	e29	51	861	373	98	33	64
20	45	e34	e24	e30	e34	e27	48	841	372	91	34	67
21	45	e35	e24	e31	e35	e31	47	757	490	86	34	66
22	45	33	e24	e32	e37	e35	46	727	557	82	34	67
23	e45	32	e24	e32	e40	e40	50	581	393	77	36	67
24	43	e34	e23	e31	e37	e40	69	377	321	75	42	65
25	42	e34	e23	e31	e35	e32	105	268	273	71	56	67
26	42	e32	e22	e31	e34	e29	142	207	253	67	46	66
27	42	e32	e23	e31	e32	e29	170	177	290	64	45	60
28	42	e32	e24	e30	e30	e29	166	166	284	67	43	59
29	42	e32	e25	e30	e28	e31	126	169	253	74	40	57
30	41	e32	e27	e31	--	e32	116	206	239	68	39	55
31	40	--	e29	e31	--	e33	--	214	--	63	38	--
TOTAL	1604	1054	854	933	922	938	2081	14062	12849	3792	1377	1591
MEAN	51.7	35.1	27.5	30.1	31.8	30.3	69.4	454	428	122	44.4	53.0
MAX	77	43	32	32	40	40	170	861	687	225	63	73
MIN	40	32	22	28	27	26	34	139	239	63	33	33
AC-FT	3180	2090	1690	1850	1830	1860	4130	27890	25490	7520	2730	3160

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1996, BY WATER YEAR (WY)

MEAN	48.1	33.5	25.4	23.5	25.0	28.4	56.3	322	558	345	127	71.5
MAX	73.8	44.8	35.7	33.8	36.1	43.3	69.4	454	783	734	253	89.8
(WY)	1995	1995	1995	1995	1995	1995	1996	1996	1995	1995	1995	1993
MIN	33.4	27.0	18.9	13.8	15.7	18.6	39.6	147	403	122	44.4	53.0
(WY)	1993	1993	1992	1992	1992	1992	1993	1993	1995	1996	1996	1996

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1992 - 1996
ANNUAL TOTAL	69693	42057	
ANNUAL MEAN	191	115	139
HIGHEST ANNUAL MEAN			194
LOWEST ANNUAL MEAN			103
HIGHEST DAILY MEAN	1170	Jul 12	1170
LOWEST DAILY MEAN	e <sup>22</sup>	Dec 26	12
ANNUAL SEVEN-DAY MINIMUM	23	Dec 21	13
INSTANTANEOUS PEAK FLOW		1120	a <sup>1450</sup>
INSTANTANEOUS PEAK STAGE		b <sup>3.52</sup>	c,d <sup>3.34</sup>
ANNUAL RUNOFF (AC-FT)	138200	83420	100700
10 PERCENT EXCEEDS	672	372	406
50 PERCENT EXCEEDS	52	41	45
90 PERCENT EXCEEDS	32	29	17

e-Estimated.

a-Also occurred July 12, 1995.

b-Maximum gage height, 3.61 ft, May 19, due to change in channel conditions.

c-Maximum gage height during statistical period, 3.73 ft, May 31, 1993.

d-Maximum gage height during period Jun to Oct, 1903, 4.90 ft, Jun 17, 1903, maximum discharge unknown.

## SAN JUAN RIVER BASIN

**09358550 CEMENT CREEK AT SILVERTON, CO**

**LOCATION**--Lat 37°49'11", long 107°39'47", in SW<sup>1/4</sup>SW<sup>1/4</sup> sec.8, T.41 N., R.7 W., San Juan County, Hydrologic Unit 14080104, on left bank, at abandoned railroad, crossing Cement Creek, 0.1 mile north of Silverton, and 0.8 mile upstream from mouth.

**DRAINAGE AREA**--20.1 mi<sup>2</sup>.

**PERIOD OF RECORD**--October 1991 to September 1993, October 1994 to current year.

**GAGE**--Water-stage recorder. Elevation of gage is 9,380 ft above sea level, from topographic map.

**REMARKS**--Records good except for estimated daily discharges, which are poor. Natural regulation by many lakes upstream from station. Diversions for mining operations upstream from station, however, these diversions are returned to the creek. Mine drainage contributes considerable amounts of water to the creek. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

**EXTREMES OUTSIDE PERIOD OF RECORD**--A major flood occurred October 5, 1911. A more recent flood occurred June 6, 1978, when Lake Emma (6.5 mi northeast of Silverton) was undermined by mining operations, and released a large quantity of water into the headwaters of Cement Creek. Discharge not determined.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	17	e16	e14	e14	e14	22	66	76	45	21	17
2	22	17	e16	e15	e14	e14	24	87	92	44	21	17
3	22	16	e16	e16	e14	e14	23	100	107	41	21	17
4	21	16	e16	e15	e14	e13	20	116	117	41	20	17
5	21	16	e16	e14	e15	e13	19	138	126	39	19	18
6	20	16	e16	e15	e15	e14	22	148	138	37	18	19
7	20	17	e15	e15	e15	e14	27	143	135	36	18	17
8	19	17	e15	e16	e16	e15	36	149	129	37	18	16
9	19	17	e15	e16	e17	e16	49	149	117	35	17	16
10	19	17	e15	e16	e17	e17	48	142	108	34	17	15
11	18	e17	e15	e16	e16	e17	37	165	95	32	17	15
12	18	17	e15	e16	e16	e16	31	197	80	31	16	19
13	18	17	e14	e16	e16	e15	30	207	77	30	15	18
14	18	17	e13	e16	e16	e15	26	206	98	28	16	23
15	18	17	e13	e16	e17	e15	25	222	82	27	17	22
16	18	17	e13	e15	e17	e15	25	244	73	28	18	19
17	18	17	e13	e15	e17	e15	26	233	72	27	18	20
18	17	17	e13	e16	e18	e15	24	225	71	26	18	19
19	17	16	e12	e16	e19	18	23	229	69	25	18	20
20	17	17	e12	e17	e20	17	22	219	66	25	18	19
21	17	17	e12	e16	e19	20	21	203	87	24	18	18
22	17	17	e11	e16	e18	21	21	190	93	23	18	17
23	17	17	e12	e16	e17	20	26	151	72	22	18	17
24	17	17	e12	e16	e16	19	40	112	60	22	19	16
25	17	17	e13	e16	e16	18	62	88	55	22	21	17
26	17	18	e13	e16	e15	17	76	69	51	21	19	16
27	17	17	e14	e16	e15	17	85	58	58	21	18	16
28	17	15	e15	e16	e14	17	71	52	55	21	18	16
29	17	e16	e15	e16	e14	17	47	56	50	22	18	15
30	17	e16	e15	e16	---	17	53	62	47	21	17	15
31	17	---	e14	e15	---	18	---	63	---	21	17	---
TOTAL	571	502	435	486	467	503	1061	4489	2556	908	562	526
MEAN	18.4	16.7	14.0	15.7	16.1	16.2	35.4	145	85.2	29.3	18.1	17.5
MAX	24	18	16	17	20	21	85	244	138	45	21	23
MIN	17	15	11	14	14	13	19	52	47	21	15	15
AC-FT	1130	996	863	964	926	998	2100	8900	5070	1800	1110	1040
<b>STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1996, BY WATER YEAR (WY)</b>												
MEAN	17.4	15.5	12.8	12.4	13.5	16.5	30.1	107	158	72.4	28.5	21.0
MAX	21.7	17.8	15.6	15.8	17.8	22.7	35.4	145	263	149	45.9	24.4
(WY)	1995	1995	1995	1995	1995	1995	1996	1996	1995	1995	1995	1995
MIN	14.0	13.3	10.6	8.63	9.91	13.4	24.1	57.2	85.2	29.3	18.1	17.5
(WY)	1992	1992	1992	1992	1993	1993	1995	1995	1996	1996	1996	1996
<b>SUMMARY STATISTICS FOR 1995 CALENDAR YEAR</b>												
ANNUAL TOTAL		20354					13066					
ANNUAL MEAN			55.8				35.7			42.2		
HIGHEST ANNUAL MEAN										56.3		1995
LOWEST ANNUAL MEAN										32.1		1992
HIGHEST DAILY MEAN		385		Jun 16			244		May 16		385	
LOWEST DAILY MEAN		e11		Dec 22			e11		Dec 22		7.5	
ANNUAL SEVEN-DAY MINIMUM		12		Dec 18			12		Dec 18		8.4	
INSTANTANEOUS PEAK FLOW							333		May 16		471	
INSTANTANEOUS PEAK STAGE							2.57		May 16		2.85	
ANNUAL RUNOFF (AC-FT)		40370					25920				30560	
10 PERCENT EXCEEDS		172					87				108	
50 PERCENT EXCEEDS		22					18				19	
90 PERCENT EXCEEDS		16					15				10	

e-Estimated.

## 09359010 MINERAL CREEK AT SILVERTON, CO

LOCATION.--Lat 37°48'10", long 107°40'20", in NW<sup>1/4</sup>NE<sup>1/4</sup> sec.19, T.41 N., R.7 W., San Juan County, Hydrologic Unit 14080104, on right bank at southwest end of Greene Street at abandoned bridge crossing Mineral Creek, 300 feet downstream from U. S. Highway 550, crossing Mineral Creek, 1,400 feet upstream from mouth, and 0.5 mile southwest of Silverton.

DRAINAGE AREA.--52.5 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1991 to September 1993, October 1994 to current year. Statistics do not include period of no record.

GAGE.--Water-stage recorder. Datum of gage is 9245.982 ft above sea level, from San Juan County bench mark.

REMARKS.--Records good except for estimated daily discharges, which are poor. Natural regulation by many lakes upstream from station. Diversions upstream from Mineral Creek drainage to Uncompahgre River drainage consists of 100 to 200 acre-feet per year through Red Mountain Ditch and 400 to 500 acre-feet per year through Carbon Lake Ditch. City of Silverton diverts some water from Bear Creek (tributary) for municipal use. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood known occurred October 5, 1911. An indirect determination of peak flow for flood of September 5, 1970, was run in very close proximity to present site, discharge, 3070 ft<sup>3</sup>/s, gage height not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	34	e27	e21	e19	e21	e28	110	169	150	47	43
2	64	32	e27	e20	e18	e21	31	140	233	138	49	42
3	61	29	e26	e20	e17	e21	31	169	305	133	58	41
4	59	e28	e26	e21	e18	e21	28	203	341	157	58	40
5	57	e28	e26	e23	e19	e22	27	258	348	135	50	42
6	52	e28	e25	e21	e20	e22	30	296	366	125	46	54
7	52	e28	e25	e20	e19	e21	36	301	379	112	44	54
8	50	e28	e25	e20	e19	e21	47	312	349	108	43	49
9	48	e28	e25	e19	e19	e22	67	329	316	111	43	46
10	47	28	e24	e19	e19	e23	77	308	286	121	40	44
11	47	28	e24	e19	e20	e24	64	372	259	102	39	43
12	47	e28	e24	e19	e20	e25	52	448	245	91	37	50
13	45	e28	e25	e19	e20	e25	51	478	218	84	37	50
14	43	e28	e25	e19	e20	e25	44	483	275	80	36	61
15	42	e28	e24	e19	e20	e24	41	514	241	77	35	68
16	42	e28	e23	e19	e21	e23	41	596	218	75	34	68
17	41	e27	e25	e20	e21	e23	41	658	224	74	35	77
18	39	e27	e24	e19	e21	e23	38	622	219	75	35	72
19	38	e27	e23	e19	e21	e23	35	603	208	72	34	66
20	35	e26	e22	e18	e22	e23	33	579	208	66	34	64
21	36	e26	e22	e18	e23	e23	31	524	326	62	35	61
22	37	e25	e21	e19	e24	e25	31	528	358	59	34	63
23	34	e25	e17	e18	e23	e27	37	413	239	56	33	64
24	35	e26	e18	e18	e22	e28	59	254	194	53	47	64
25	35	e26	e20	e17	e22	e27	94	178	164	52	66	64
26	35	26	e22	e16	e22	e26	119	142	148	50	65	63
27	35	e25	e20	e17	e21	e25	140	124	211	49	63	57
28	33	e24	e19	e18	e20	e25	128	109	278	50	55	55
29	33	e24	e20	e19	e20	e25	91	112	211	58	50	53
30	33	e27	e21	e19	---	e25	89	136	167	55	47	51
31	33	---	e23	e19	---	e25	---	137	---	50	44	---
TOTAL	1359	820	718	592	590	734	1661	10436	7703	2680	1373	1669
MEAN	43.8	27.3	23.2	19.1	20.3	23.7	55.4	337	257	86.5	44.3	55.6
MAX	71	34	27	23	24	28	140	658	379	157	66	77
MIN	33	24	17	16	17	21	27	109	148	49	33	40
AC-FT	2700	1630	1420	1170	1170	1460	3290	20700	15280	5320	2720	3310

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1996, BY WATER YEAR (WY)

MEAN	39.2	28.4	22.3	19.2	20.5	25.3	52.3	245	421	266	115	63.2
MAX	52.5	34.2	27.8	27.1	29.5	36.1	64.2	337	554	540	219	77.0
(WY)	1995	1995	1995	1995	1995	1995	1995	1996	1995	1995	1995	1995
MIN	28.3	24.7	18.3	13.4	14.7	18.4	41.2	96.5	257	86.5	44.3	55.6

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1992 - 1996

ANNUAL TOTAL	52370	30335		
ANNUAL MEAN	143	82.9	110	
HIGHEST ANNUAL MEAN			145	1995
LOWEST ANNUAL MEAN			82.9	1996
HIGHEST DAILY MEAN	945	Jun 16	658	May 17
LOWEST DAILY MEAN	e17	Dec 23	e16	Jan 26
ANNUAL SEVEN-DAY MINIMUM	19	Dec 23	18	Jan 21
INSTANTANEOUS PEAK FLOW			900	May 16
INSTANTANEOUS PEAK STAGE			2.72	May 16
ANNUAL RUNOFF (AC-FT)	103900	60170	1670	Jun 15 1995
10 PERCENT EXCEEDS	488	235	79750	3.41 Jun 15 1995
50 PERCENT EXCEEDS	42	36	311	38
90 PERCENT EXCEEDS	26	20	18	

e-Estimated.

## SAN JUAN RIVER BASIN

## 09359020 ANIMAS RIVER BELOW SILVERTON, CO

LOCATION.--Lat 37°47'25", long 107°40'01", in SW<sup>1/4</sup>SW<sup>1/4</sup> sec.20, T.41 N., R.7 W., San Juan County, Hydrologic Unit 14080104, on right bank 500 feet upstream from Durango-Silverton Railroad, crossing Animas River, 0.7 mile downstream from Mineral Creek, and 1.1 miles south of Silverton.

DRAINAGE AREA.--146 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1991 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 9,200 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Natural regulation by many lakes upstream from station. Diversions from Animas River and Mineral Creek drainages through Red Mountain, Carbon Lake and Mineral Point ditches amount to 600 to 1100 acre feet per year. City of Silverton diverts some water for municipal use from Bear Creek and Boulder Creek, both tributaries upstream.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood known occurred October 5, 1911.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	192	98	76	e75	e70	e66	82	394	548	422	138	103
2	175	93	76	e71	e68	e64	97	461	721	404	139	101
3	164	82	75	e71	e64	e62	99	538	898	386	151	100
4	162	83	75	e72	e64	e62	88	624	988	395	147	97
5	158	83	75	e76	e66	e62	85	741	998	365	134	98
6	147	84	73	e72	e66	e60	96	838	1070	348	127	114
7	147	84	73	e73	e68	e60	115	869	1110	321	123	112
8	141	83	72	e76	e71	e62	154	902	1040	313	122	103
9	138	83	75	e78	e74	e66	217	950	944	310	120	99
10	134	83	75	e78	e75	e68	238	911	872	319	115	95
11	133	90	75	e76	e74	213	1090	797	287	109	95	
12	133	87	72	e75	e76	e78	186	1360	716	262	106	118
13	131	87	73	e76	e74	e74	180	1460	673	244	102	118
14	126	88	73	e74	e74	e70	152	1480	831	226	100	142
15	125	87	69	e71	e74	e68	141	1610	712	219	96	158
16	123	86	e68	e68	e75	e68	151	1810	643	218	95	151
17	119	85	e66	e71	e77	e68	153	1840	673	215	96	160
18	114	83	e64	e73	e80	e64	143	1820	661	215	96	159
19	112	83	e63	e74	e80	61	131	1780	631	203	95	151
20	103	81	e63	e73	e80	62	128	1700	627	190	95	151
21	104	81	e61	e72	e88	67	123	1520	841	179	98	147
22	107	82	e60	e72	e92	70	124	1390	924	171	96	151
23	98	79	e60	e75	e87	71	147	1110	666	163	97	151
24	102	77	e59	e76	e82	70	221	759	561	157	118	150
25	99	78	e60	e76	e80	69	334	581	491	154	150	153
26	100	81	e62	e76	e76	68	414	462	464	148	137	153
27	99	76	e64	e71	e71	67	456	405	558	145	132	141
28	97	79	e66	e72	e67	68	437	371	610	145	121	138
29	97	78	e68	e75	e67	68	339	374	517	160	114	136
30	96	78	e72	e76	--	69	327	446	454	154	108	133
31	96	--	e77	e76	--	72	--	455	--	143	104	--
TOTAL	3872	2502	2140	2290	2162	2078	5771	31051	22239	7581	3581	3878
MEAN	125	83.4	69.0	73.9	74.6	67.0	192	1002	741	245	116	129
MAX	192	98	77	78	92	78	456	1840	1110	422	151	160
MIN	96	76	59	68	64	60	82	371	454	143	95	95
AC-FT	7680	4960	4240	4540	4290	4120	11450	61590	44110	15040	7100	7690

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1996, BY WATER YEAR (WY)

MEAN	110	82.3	64.9	61.6	62.5	73.8	160	688	1158	592	245	169
MAX	157	99.1	80.2	78.6	85.6	105	192	1002	1555	1393	520	209
(WY)	1995	1995	1995	1995	1995	1995	1996	1996	1995	1995	1995	1995
MIN	82.0	70.9	52.5	40.2	46.1	59.7	122	301	741	225	116	129
(WY)	1992	1992	1992	1992	1992	1992	1993	1995	1996	1994	1996	1996

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1992 - 1996
ANNUAL TOTAL	141874	89145	
ANNUAL MEAN	389	244	289
HIGHEST ANNUAL MEAN			394
LOWEST ANNUAL MEAN			235
HIGHEST DAILY MEAN	2350	Jul 10	2350
LOWEST DAILY MEAN	e59	Dec 24	35
ANNUAL SEVEN-DAY MINIMUM	61	Dec 20	Jan 18 1992
INSTANTANEOUS PEAK FLOW		2290	2970
INSTANTANEOUS PEAK STAGE		4.69 May 16	a4.89 Jul 9 1995
ANNUAL RUNOFF (AC-FT)	281400	176800	209700
10 PERCENT EXCEEDS	1270	673	838
50 PERCENT EXCEEDS	126	101	107
90 PERCENT EXCEEDS	76	68	56

e-Estimated.

a-Also occurred Jun 25, 1995.

## 09359020 ANIMAS RIVER BELOW SILVERTON, CO--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Periodic water-quality: October 1993 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET	SPE-CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
NOV 29...	1010	76	545	6.3	1.0	11.8	270	99	5.3	3.6	0.1
APR 09...	1050	167	420	6.4	4.0	10.0	180	66	3.9	2.7	0.1
MAY 22...	0640	1370	117	7.0	2.0	10.2	48	17	1.3	0.90	0.1
AUG 14...	0955	99	422	6.6	9.0	8.2	190	69	4.1	2.7	0.1
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DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY CACO3)	SULFATE AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, DIS- SOLVED (TONS PER DAY)	
NOV 29...	0.90	4.9	270	0.8	0.7	15	425	402	0.58	87.2	
APR 09...	1.2	4.7	180	1.0	0.6	12	292	274	0.40	132	
MAY 22...	0.40	12	39	0.3	0.2	5.3	86	72	0.12	318	
AUG 14...	0.90	7.7	190	0.6	0.6	13	306	288	0.42	82.1	
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DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	CADMUM SOLVED (UG/L AS CD)	COPPER, DIS- SOLVED (UG/L AS CU)	TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	
NOV 29...	2000	150	2.0	30	11	2600	1800				
APR 09...	1700	120	3.0	60	20	4000	1400				
MAY 22...	750	50	1.0	30	8	1800	180				
AUG 14...	1700	20	1.0	30	7	6600	910				
<hr/>											
DATE	MANGA- NESE, LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY SOLVED (UG/L AS MN)	SELE- NIUM, DIS- SOLVED (UG/L AS HG)	SILVER, DIS- SOLVED (UG/L AS SE)	ZINC, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)				
NOV 29...	<1	1000	1000	<0.1	<1	<0.2	490				
APR 09...	<1	1300	1200	<0.1	<1	<0.2	830				
MAY 22...	<1	450	250	<0.1	<1	<0.2	270				
AUG 14...	<1	--	660	<0.1	<1	<0.2	430				

## SAN JUAN RIVER BASIN

**09359020 ANIMAS RIVER BELOW SILVERTON, CO--Continued**

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND				DIS- CHARGE, INST. CUBIC FEET PER SECOND				
		SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)			
OCT 17...	1300	117	454	6.5		MAY 09...	0955	884	167	3.5
JAN 16...	1520	65	635	1.0		21...	1930	1750	115	6.5
						SEP 18...	1245	155	390	7.0

SAN JUAN RIVER BASIN  
09361500 ANIMAS RIVER AT DURANGO, CO

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LOCATION.--Lat 37°16'45", long 107°52'47", in SW<sup>1/4</sup>SW<sup>1/4</sup> sec.20, T.35 N., R.9 W., La Plata County, Hydrologic Unit 14080104, on left bank at abandoned power plant at Durango, 0.8 mi upstream from Lightner Creek.

DRAINAGE AREA.--692 mi<sup>2</sup>.

PERIOD OF RECORD.--June to December 1895, April 1896 to December 1898, April 1899 to December 1900, March to May 1901, April to November 1902, March to April 1903 (gage heights only, erroneously stated as discredited in WSP 1563), May to October 1903, July 1904 to December 1905, January to December 1910 (gage heights only), January to September 1911, January 1912 to current year. Monthly or yearly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 764: Drainage area. WSP 929: 1927(M). WSP 1243: 1911, 1918(M). WSP 1563: 1911-25 (monthly figures only).

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 6,501.57 ft above sea level. See WSP 1713 or 1733 for history of changes prior to Mar. 2, 1921.

REMARKS.--Records good except for estimated daily discharges, which are fair. Diversions for irrigation of about 4,000 acres upstream from station. Natural regulation by many lakes and regulation for power upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1885, that of Oct. 5, 1911.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	527	252	217	190	170	183	246	1010	939	879	247	205
2	491	259	215	e174	171	191	289	1170	1090	832	249	195
3	456	248	209	e170	e157	190	335	1410	1340	774	225	190
4	430	228	208	178	e145	195	345	1610	1540	731	248	183
5	414	228	210	196	159	201	329	1900	1610	699	241	170
6	392	225	207	181	177	204	314	2200	1660	669	218	172
7	377	228	205	170	173	196	328	2350	1750	623	203	185
8	375	225	205	174	164	189	374	2250	1730	599	193	180
9	366	222	202	162	165	194	484	2460	1590	613	181	171
10	351	237	199	160	168	201	646	2140	1420	656	175	164
11	346	231	200	162	174	213	672	2360	1300	633	175	168
12	339	224	200	158	174	227	607	2950	1190	560	162	179
13	335	233	205	161	174	235	565	3290	1100	527	157	226
14	331	231	205	160	173	231	511	3150	1270	489	151	277
15	327	229	203	161	178	222	450	3210	1360	489	145	380
16	316	225	192	162	185	204	431	3500	1140	437	141	406
17	310	221	203	177	187	215	450	3680	1120	456	139	406
18	308	221	200	163	186	213	446	3540	1110	438	149	438
19	307	215	191	159	187	206	430	3350	1050	439	145	442
20	297	213	183	e161	195	205	399	3270	1000	429	146	413
21	286	206	182	e157	206	211	383	2860	1060	397	145	413
22	277	205	188	163	214	228	360	2670	1520	370	157	399
23	278	208	175	e165	204	250	361	2460	1360	345	161	396
24	265	211	e145	e157	199	259	440	1820	1060	326	172	384
25	267	210	e165	168	199	249	700	1390	922	303	197	382
26	259	210	e183	e149	199	240	1040	1160	828	284	260	384
27	255	215	172	e141	192	231	1250	1010	836	271	269	378
28	255	203	159	e157	173	230	1430	894	1120	260	261	363
29	253	209	168	172	182	237	1090	819	1120	255	245	356
30	252	220	174	170	---	238	915	853	939	277	233	325
31	250	---	194	171	---	232	---	907	---	263	215	---
TOTAL	10292	6692	5964	5149	5230	6720	16620	67643	37074	15323	6005	8930
MEAN	332	223	192	166	180	217	554	2182	1236	494	194	298
MAX	527	259	217	196	214	259	1430	3680	1750	879	269	442
MIN	250	203	145	141	145	183	246	819	828	255	139	164
AC-FT	20410	13270	11830	10210	10370	13330	32970	134200	73540	30390	11910	17710
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1898 - 1996, BY WATER YEAR (WY)												
MEAN	409	285	221	202	206	294	841	2298	2887	1212	577	454
MAX	1866	814	412	326	352	844	1818	4791	5846	3057	1500	1709
(WY)	1942	1942	1942	1973	1920	1916	1985	1920	1917	1995	1929	1970
MIN	162	158	129	103	110	133	246	474	395	211	179	161
(WY)	1957	1935	1990	1933	1990	1977	1977	1977	1934	1934	1900	1956
SUMMARY STATISTICS FOR 1995 CALENDAR YEAR				FOR 1996 WATER YEAR				WATER YEARS 1898 - 1996				
ANNUAL TOTAL		413250			191642							
ANNUAL MEAN		1132			524					823		
HIGHEST ANNUAL MEAN										1366		1917
LOWEST ANNUAL MEAN										302		1977
HIGHEST DAILY MEAN		6900		Jun 16		3680		May 17		10700		Jun 19 1949
LOWEST DAILY MEAN		145		Dec 24		139		Aug 17		94		Mar 2 1913
ANNUAL SEVEN-DAY MINIMUM		167		Dec 24		144		Aug 15		100		Dec 19 1917
INSTANTANEOUS PEAK FLOW						4130		May 17		a25000		Oct 5 1911
INSTANTANEOUS PEAK STAGE						5.56		May 17		11.00		Oct 5 1911
ANNUAL RUNOFF (AC-FT)		819700			380100					596100		
10 PERCENT EXCEEDS		3330			1280					2240		
50 PERCENT EXCEEDS		515			243					340		
90 PERCENT EXCEEDS		209			165					180		

e-Estimated.

a-Present site and datum, from rating curve extended above 13000 ft<sup>3</sup>/s.

## SAN JUAN RIVER BASIN

**09362550 WILSON GULCH NEAR DURANGO, CO**

LOCATION.--Lat  $37^{\circ}14'36''$ , long  $107^{\circ}50'33''$ , in NE $^{1/4}$ NW $^{1/4}$  sec.10, T.34 N., R.9 W., La Plata County, Hydrologic Unit 14080104, on right bank 0.4 mi upstream from intersection of U.S. Highway 160 and 55, 0.9 mi upstream from mouth, and 4.5 mi southeast of Durango.

DRAINAGE AREA.--6.5 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1995 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,580 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Florida Farmers Ditch diverts some project water from Florida River drainage to headwaters of Wilson Gulch for irrigation of several acres upstream in Artesian Valley. No diversions upstream from gage for irrigation downstream. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	1.7	1.5	1.7
2	---	---	---	---	---	---	---	---	---	1.7	1.6	1.7
3	---	---	---	---	---	---	---	---	---	1.5	1.6	1.7
4	---	---	---	---	---	---	---	---	---	1.6	1.5	1.6
5	---	---	---	---	---	---	---	---	---	1.5	1.5	1.7
6	---	---	---	---	---	---	---	---	---	1.6	1.5	1.7
7	---	---	---	---	---	---	---	---	1.9	1.6	1.6	1.7
8	---	---	---	---	---	---	---	---	2.0	1.7	1.6	1.9
9	---	---	---	---	---	---	---	---	1.9	1.6	1.6	2.0
10	---	---	---	---	---	---	---	---	1.8	1.5	1.6	1.9
11	---	---	---	---	---	---	---	---	1.8	1.4	1.6	1.7
12	---	---	---	---	---	---	---	---	1.8	1.5	1.7	1.7
13	---	---	---	---	---	---	---	---	1.8	1.6	1.9	1.7
14	---	---	---	---	---	---	---	---	1.9	1.6	1.8	1.6
15	---	---	---	---	---	---	---	---	1.9	1.5	1.7	1.6
16	---	---	---	---	---	---	---	---	2.0	1.6	2.0	1.7
17	---	---	---	---	---	---	---	---	2.0	1.9	2.1	1.6
18	---	---	---	---	---	---	---	---	1.9	2.0	2.2	1.7
19	---	---	---	---	---	---	---	---	1.8	1.9	2.3	1.6
20	---	---	---	---	---	---	---	---	1.8	1.7	2.5	1.6
21	---	---	---	---	---	---	---	---	1.8	1.6	2.4	1.5
22	---	---	---	---	---	---	---	---	1.7	1.6	2.4	1.6
23	---	---	---	---	---	---	---	---	1.5	1.6	2.1	1.6
24	---	---	---	---	---	---	---	---	1.6	1.6	2.0	1.6
25	---	---	---	---	---	---	---	---	1.5	1.6	1.9	1.6
26	---	---	---	---	---	---	---	---	1.5	1.6	1.8	1.6
27	---	---	---	---	---	---	---	---	1.5	1.7	1.9	1.6
28	---	---	---	---	---	---	---	---	1.5	1.6	1.8	1.7
29	---	---	---	---	---	---	---	---	1.5	1.6	1.8	1.8
30	---	---	---	---	---	---	---	---	1.6	1.5	1.8	1.7
31	---	---	---	---	---	---	---	---	---	1.5	1.7	---
TOTAL	---	---	---	---	---	---	---	---	50.2	57.0	50.4	
MEAN	---	---	---	---	---	---	---	---	1.62	1.84	1.68	
MAX	---	---	---	---	---	---	---	---	2.0	2.5	2.0	
MIN	---	---	---	---	---	---	---	---	1.4	1.5	1.5	
AC-FT	---	---	---	---	---	---	---	---	100	113	100	

## 09362550 WILSON GULCH NEAR DURANGO, CO--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	1.6	1.5	1.4	1.2	1.1	.86	.75	.88	.82	.74	.86
2	1.7	1.5	1.5	1.4	1.2	1.1	.87	.75	.83	.73	.75	.85
3	1.8	1.6	1.5	1.4	1.2	1.1	.85	.75	.83	.71	.75	.85
4	1.8	1.6	1.5	1.4	1.2	1.1	.84	.74	.85	.70	.78	.86
5	1.7	1.6	1.5	1.4	1.2	1.2	.86	.75	.83	.71	.75	.81
6	1.7	1.6	1.5	1.4	1.2	1.2	.90	.76	.87	.73	.75	.80
7	1.7	1.6	1.5	1.4	1.2	1.1	.81	.76	.96	.79	.75	.77
8	1.7	1.5	1.5	1.4	1.2	1.1	.81	.77	.93	.83	.76	.69
9	1.7	1.6	1.4	1.4	1.3	1.1	.77	.78	.90	.92	.79	.70
10	1.7	1.7	1.4	1.4	1.3	1.0	.71	.76	.91	1.0	.76	.67
11	1.7	1.6	1.4	1.4	1.4	1.0	.70	.76	.98	1.1	.75	.65
12	1.7	1.5	1.4	1.4	1.5	1.0	.69	.78	1.0	1.0	.75	.66
13	1.7	1.5	1.5	1.4	1.6	1.0	.77	.78	1.0	1.1	.77	.65
14	1.7	1.5	1.5	1.4	1.6	.99	.75	.88	1.1	1.1	.78	.73
15	1.8	1.5	1.5	1.4	1.5	.98	.73	.90	1.1	.93	.79	.66
16	1.8	1.5	1.4	1.4	1.5	.95	.69	.89	1.1	.96	.79	.64
17	1.8	1.5	1.5	1.4	1.4	.94	.76	.89	1.0	.94	.80	.67
18	1.7	1.5	1.5	1.4	1.4	.93	.73	.94	1.0	.88	.81	.69
19	1.6	1.5	1.5	1.4	1.3	.91	.73	.90	1.1	.85	.80	.66
20	1.6	1.5	1.4	1.4	1.4	.90	.74	1.0	1.3	.83	.82	.66
21	1.6	1.5	1.4	1.4	1.4	.90	.75	.99	1.2	.83	.83	.66
22	1.6	1.5	1.4	1.4	1.3	.89	.75	.96	1.2	.81	.84	.66
23	1.6	1.5	1.4	1.4	1.3	.87	.77	.94	1.0	.80	.85	.67
24	1.6	1.5	1.4	1.4	1.2	.87	.77	1.0	.94	.78	.90	.68
25	1.6	1.5	1.4	1.4	1.2	.87	.77	1.0	.95	.73	.87	.68
26	1.6	1.5	1.4	1.4	1.2	.85	.77	1.0	.94	.77	.88	.69
27	1.6	1.5	1.4	1.3	1.2	.84	.76	1.0	1.3	.79	.90	.69
28	1.6	1.5	1.4	1.3	1.1	.84	.73	.99	1.1	.78	.90	.70
29	1.6	1.5	1.4	1.3	1.1	.86	.73	1.0	.91	.76	.90	.70
30	1.6	1.5	1.4	1.3	---	.86	.74	.98	.97	.74	.90	.71
31	1.6	---	1.4	1.2	---	.86	---	.93	---	.73	.91	---
TOTAL	51.9	46.0	44.8	42.8	37.8	30.21	23.11	27.08	29.98	26.15	25.12	21.37
MEAN	1.67	1.53	1.45	1.38	1.30	.97	.77	.87	1.00	.84	.81	.71
MAX	1.8	1.7	1.5	1.4	1.6	1.2	.90	1.0	1.3	1.1	.91	.86
MIN	1.6	1.5	1.4	1.2	1.1	.84	.69	.74	.83	.70	.74	.64
AC-FT	103	91	89	85	75	60	46	54	59	52	50	42

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1996, BY WATER YEAR (WY)

MEAN	1.67	1.53	1.45	1.38	1.30	.97	.77	.87	1.00	1.23	1.32	1.20
(WY)	1996	1996	1996	1996	1996	1996	1996	1996	1996	1995	1995	1995
MAX	1.67	1.53	1.45	1.38	1.30	.97	.77	.87	1.00	1.62	1.84	1.68
(WY)	1996	1996	1996	1996	1996	1996	1996	1996	1996	1995	1995	1995
MIN	1.67	1.53	1.45	1.38	1.30	.97	.77	.87	1.00	.84	.81	.71
(WY)	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996

SUMMARY STATISTICS			FOR 1996 WATER YEAR			WATER YEARS 1995 - 1996		
ANNUAL TOTAL			406.32					
ANNUAL MEAN			1.11			1.11		
HIGHEST ANNUAL MEAN						1.11		1996
LOWEST ANNUAL MEAN						1.11		1996
HIGHEST DAILY MEAN			a1.8	Oct 3		2.5	Aug 20	1995
LOWEST DAILY MEAN			.64	Sep 16		.64	Sep 16	1996
ANNUAL SEVEN-DAY MINIMUM			.66	Sep 15		.66	Sep 15	1996
INSTANTANEOUS PEAK FLOW			4.7	Jun 27		4.7	Jun 27	1996
INSTANTANEOUS PEAK STAGE			3.22	Jun 27		3.22	Jun 27	1996
ANNUAL RUNOFF (AC-FT)			806					
10 PERCENT EXCEEDS			1.6					
50 PERCENT EXCEEDS			1.0					
90 PERCENT EXCEEDS			.73					

a-Also occurred Oct 4, 15-17.

## SAN JUAN RIVER BASIN

**09362600 RAINBOW SPRINGS TROUT RANCH NEAR BONDAD, CO**

LOCATION.--Lat 37°08'50", long 107°52'08", in NE<sup>1/4</sup>SW<sup>1/4</sup> sec.31, T.34 N., R.9 W., La Plata County, Hydrologic Unit 14080104, on right bank 80 ft upstream from trout rearing pens, 500 ft upstream from La Plata County Road 214, 1,000 ft upstream from irrigation ditch and mouth, 10.8 mi north of Bondad and 10 mi south of Durango.

DRAINAGE AREA.--Indeterminate.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--May 1995 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,380 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Florida Farmers Ditch diverts some project water from Florida River for irrigation of fields above the spring location. At times some return flow will enter the drainage upstream of the gage location.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	1.5	1.9	1.5	1.7
2	---	---	---	---	---	---	---	---	1.5	1.8	1.6	1.8
3	---	---	---	---	---	---	---	---	1.5	1.8	1.6	1.8
4	---	---	---	---	---	---	---	---	1.5	1.8	1.6	1.8
5	---	---	---	---	---	---	---	---	1.5	1.7	1.6	1.8
6	---	---	---	---	---	---	---	---	1.5	1.7	1.6	1.8
7	---	---	---	---	---	---	---	---	1.5	1.7	1.7	1.8
8	---	---	---	---	---	---	---	---	1.5	1.6	1.7	1.8
9	---	---	---	---	---	---	---	---	1.6	1.6	1.7	1.8
10	---	---	---	---	---	---	---	---	1.6	1.6	1.7	1.8
11	---	---	---	---	---	---	---	---	1.6	1.6	1.8	1.8
12	---	---	---	---	---	---	---	---	1.6	1.6	1.8	1.8
13	---	---	---	---	---	---	---	---	1.6	1.7	1.7	1.8
14	---	---	---	---	---	---	---	---	1.6	1.7	1.7	1.8
15	---	---	---	---	---	---	---	---	1.7	1.6	1.7	1.8
16	---	---	---	---	---	---	---	---	1.7	1.6	1.7	1.8
17	---	---	---	---	---	---	---	---	1.8	1.7	1.7	1.8
18	---	---	---	---	---	---	---	---	1.7	1.7	1.7	1.8
19	---	---	---	---	---	---	---	---	1.7	1.7	1.8	1.8
20	---	---	---	---	---	---	---	1.5	1.7	1.6	2.0	1.8
21	---	---	---	---	---	---	---	1.5	1.7	1.6	1.9	1.8
22	---	---	---	---	---	---	---	1.5	1.7	1.6	1.9	1.8
23	---	---	---	---	---	---	---	1.5	1.7	1.6	1.9	1.8
24	---	---	---	---	---	---	---	1.5	1.7	1.6	1.9	1.9
25	---	---	---	---	---	---	---	1.5	1.7	1.6	1.9	1.9
26	---	---	---	---	---	---	---	1.4	1.7	1.6	1.9	1.9
27	---	---	---	---	---	---	---	1.4	1.7	1.6	1.8	1.9
28	---	---	---	---	---	---	---	1.4	1.7	1.6	1.9	2.1
29	---	---	---	---	---	---	---	1.6	1.8	1.6	1.9	2.1
30	---	---	---	---	---	---	---	1.5	1.8	1.6	1.8	2.0
31	---	---	---	---	---	---	---	1.5	---	1.6	1.7	---
TOTAL	---	---	---	---	---	---	---	49.1	51.3	54.4	55.1	
MEAN	---	---	---	---	---	---	---	1.64	1.65	1.75	1.84	
MAX	---	---	---	---	---	---	---	1.8	1.9	2.0	2.1	
MIN	---	---	---	---	---	---	---	1.5	1.6	1.5	1.7	
AC-FT	---	---	---	---	---	---	---	97	102	108	109	

## 09362600 RAINBOW SPRINGS TROUT RANCH NEAR BONDAD, CO--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	1.9	1.7	1.7	1.8	1.7	1.8	1.6	1.5	1.6	1.6	1.7
2	2.0	1.8	1.7	1.7	1.8	1.7	1.8	1.6	1.5	1.6	1.6	1.7
3	2.0	1.8	1.7	1.7	1.8	1.7	1.8	1.6	1.5	1.6	1.7	1.7
4	2.0	1.8	1.7	1.7	1.7	1.7	1.9	1.6	1.5	1.6	1.7	1.7
5	2.0	1.7	1.7	1.7	1.8	1.8	1.9	1.5	1.5	1.6	1.6	1.7
6	2.0	1.4	1.7	1.6	1.8	1.7	1.8	1.5	1.5	1.6	1.6	1.7
7	2.0	1.2	1.7	1.7	1.8	1.7	1.7	1.5	1.5	1.6	1.5	1.7
8	2.0	1.7	1.7	1.7	1.8	1.7	1.7	1.5	1.6	1.7	1.6	1.7
9	2.1	2.0	1.7	1.7	1.9	1.7	1.7	1.5	1.6	1.8	1.6	1.7
10	2.2	1.9	1.7	1.7	1.9	1.7	1.8	1.5	1.6	1.7	1.5	1.6
11	2.2	2.0	1.7	1.7	1.9	1.7	1.7	1.5	1.6	1.7	1.5	1.7
12	2.2	2.0	1.6	1.7	1.8	1.7	1.7	1.5	1.5	1.8	1.5	1.7
13	2.2	2.0	1.6	1.7	1.8	1.8	1.8	1.5	1.6	1.8	1.5	1.7
14	2.2	2.0	1.7	1.7	1.7	1.8	1.8	1.5	1.6	1.7	1.5	1.8
15	2.2	2.0	1.6	1.7	1.7	1.8	1.8	1.5	1.6	1.7	1.5	1.7
16	2.2	2.0	1.6	1.7	1.7	1.8	1.7	1.5	1.6	1.7	1.5	1.7
17	2.1	2.0	1.7	1.8	1.7	1.8	1.7	1.5	1.6	1.8	1.5	1.7
18	2.1	2.0	1.7	1.7	1.7	1.8	1.7	1.5	1.6	1.7	1.5	1.8
19	2.1	2.0	1.6	1.7	1.7	1.8	1.7	1.5	1.6	1.7	1.5	1.7
20	2.0	1.9	1.6	1.7	1.7	1.8	1.7	1.5	1.6	1.7	1.6	1.7
21	2.0	1.8	1.6	1.7	1.7	1.9	1.7	1.5	1.6	1.7	1.6	1.7
22	2.0	1.8	1.7	1.7	1.7	1.9	1.7	1.5	1.6	1.7	1.6	1.7
23	2.0	1.8	1.7	1.7	1.7	1.9	1.7	1.5	1.6	1.7	1.7	1.7
24	2.0	1.8	1.7	1.7	1.7	2.0	1.7	1.5	1.6	1.7	1.8	1.7
25	1.9	1.8	1.7	1.8	1.7	1.9	1.6	1.5	1.6	1.7	1.7	1.7
26	1.8	1.8	1.7	1.8	1.7	1.9	1.6	1.5	1.6	1.6	1.7	1.7
27	1.9	1.8	1.7	1.8	1.7	1.8	1.6	1.5	1.7	1.6	1.7	1.7
28	1.9	1.8	1.7	1.8	1.7	1.8	1.6	1.5	1.7	1.6	1.7	1.7
29	1.8	1.7	1.7	1.8	1.7	1.8	1.6	1.5	1.6	1.6	1.8	1.8
30	1.8	1.8	1.7	1.8	---	1.8	1.6	1.5	1.6	1.6	1.8	1.8
31	1.8	---	1.7	1.8	---	1.8	---	1.5	---	1.6	1.8	---
TOTAL	62.7	55.0	52.0	53.4	50.8	55.4	51.6	46.9	47.4	51.8	50.0	51.3
MEAN	2.02	1.83	1.68	1.72	1.75	1.79	1.72	1.51	1.58	1.67	1.61	1.71
MAX	2.2	2.0	1.7	1.8	1.9	2.0	1.9	1.6	1.7	1.8	1.8	1.8
MIN	1.8	1.2	1.6	1.6	1.7	1.7	1.6	1.5	1.5	1.6	1.5	1.6
AC-FT	124	109	103	106	101	110	102	93	94	103	99	102

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1996, BY WATER YEAR (WY)

MEAN	2.02	1.83	1.68	1.72	1.75	1.79	1.72	1.51	1.58	1.67	1.61	1.71
MAX	2.02	1.83	1.68	1.72	1.75	1.79	1.72	1.51	1.64	1.67	1.75	1.84
(WY)	1996	1996	1996	1996	1996	1996	1996	1995	1996	1995	1995	1995
MIN	2.02	1.83	1.68	1.72	1.75	1.79	1.72	1.51	1.58	1.65	1.61	1.71
(WY)	1996	1996	1996	1996	1996	1996	1996	1996	1996	1995	1996	1996

## SUMMARY STATISTICS

## FOR 1996 WATER YEAR

## WATER YEARS 1995 - 1996

ANNUAL TOTAL	628.3											
ANNUAL MEAN	1.72											
HIGHEST ANNUAL MEAN	1.72											
LOWEST ANNUAL MEAN	1.72											
HIGHEST DAILY MEAN	a2.2 Oct 10											
LOWEST DAILY MEAN	1.2 Nov 7											
ANNUAL SEVEN-DAY MINIMUM	1.5 May 5											
INSTANTANEOUS PEAK FLOW	2.8 Nov 8											
INSTANTANEOUS PEAK STAGE	.76 Nov 8											
ANNUAL RUNOFF (AC-FT)	1250											
10 PERCENT EXCEEDS	1.9											
50 PERCENT EXCEEDS	1.7											
90 PERCENT EXCEEDS	1.5											

a-Also occurred Oct 11-16.

b-Also occurred several times in 1996.

## SAN JUAN RIVER BASIN

## 09362600 RAINBOW SPRINGS TROUT RANCH NEAR BONDAD, CO--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1995 to May 1996 (discontinued).

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET	SPE-CIFIC CON- DUCT- PER SECOND	PH (STAND- ANCE ARD (US/CM))	TEMPER- ATURE WATER UNITS)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L) CACO3)	CALCIUM AS SOLVED (MG/L) AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L) AS MG)	SODIUM, DIS- SOLVED (MG/L) AS NA)
------	------	---------------------------------------	---	--	-------------------------------------	-------------------------------------	--	---	---	---

JUN 13...	1200	1.5	617	8.0	12.5	8.4	290	88	16	27
JUL 25...	1000	1.7	585	8.0	11.5	9.1	300	92	16	26
AUG 31...	0820	1.8	625	8.0	12.0	8.5	280	86	16	25
SEP 26...	1415	1.9	600	8.1	12.5	8.8	270	83	15	25

DATE	RATIO	BICAR- <sup>a</sup>		ALKA- <sup>b</sup>		CHLO- RIDE, DIS-	FLUO- RIDE, DIS-	SILICA, DIS- SOLVED (MG/L)	BROMIDE DIS- SOLVED (MG/L)
		SODIUM AD- SORP- TION	POTAS- SIUM, WATER DIS- SOLVED	BONATE WAT DIS IT	LINITY TOT IT				
JUN 13...	0.7	1.1	343	281	26	11	0.1	18	0.2
JUL 25...	0.7	1.7	378	310	25	11	0.1	18	0.2
AUG 31...	0.6	1.3	339	278	26	10	0.1	17	0.1
SEP 26...	0.7	1.3	350	288	25	11	<0.1	16	0.2

DATE	SOLIDS, RESIDUE AT 180 DEG. C	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS AC-FT)	SOLIDS, PER DAY	NITRO- GEN, NO2+NO3 (MG/L AS N)	NITRO- GEN, AMMONIA (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)
JUN 13...	335	363	0.46	1.37	<0.01	1.6	0.02	<0.2	<0.01
JUL 25...	332	383	0.45	1.51	<0.01	1.6	0.03	<0.2	<0.01
AUG 31...	318	354	0.43	1.57	<0.01	1.4	<0.02	<0.2	0.02
SEP 26...	312	354	0.42	1.60	<0.01	1.3	<0.02	<0.2	0.02

## MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET		DIS- CHARGE, INST. CUBIC FEET	
		PER SECOND	(US/CM)	PER SECOND	(US/CM)
MAY 19...	1600	1.4	609	13.0	JUN 01...
					1600
					1.5
					614
					13.0

a-Field dissolved bicarbonate, determined by incremental titration method.

b-Field total dissolved alkalinity, determined by incremental titration method.

## 09362600 RAINBOW SPRINGS TROUT RANCH NEAR BONDAD, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L) CACO3	CALCIUM SOLVED (MG/L) AS CACO3	MAGNE- SIUM, DIS- SOLVED (MG/L) AS MG	SODIUM, DIS- SOLVED (MG/L) AS NA
OCT 24...	1430	2.0	587	8.1	11.5	8.8	260	81	15	26
NOV 28...	1520	1.8	590	8.2	9.0	--	280	86	16	26
FEB 09...	1435	1.8	601	8.2	11.5	10.5	270	81	16	25
MAR 26...	1020	1.7	606	8.1	10.0	9.3	270	83	15	25
APR 24...	0955	1.8	603	8.2	11.0	8.9	280	87	16	26
MAY 23...	0945	1.6	613	8.1	11.5	9.2	270	84	15	26
BICAR- <sup>a</sup> ALKA- <sup>b</sup>										
DATE	RATIO	SODIUM AD- SORP- TION	POTAS- SIUM, DIS- SORPTION	BONATE WATER DIS- SOLVED	LINITY WAT DIS FIELD AS CACO3	CHLO- RIDE, DIS- SOLVED	FLUO- RIDE, DIS- SOLVED	SILICA, DIS- (MG/L) AS SIO2)	BROMIDE DIS- (MG/L) AS BR)	SOLIDS, RESIDUE AT 180 DEG. C
OCT 24...	0.7	1.4	328	268	25	10	--	17	0.15	301
NOV 28...	0.7	1.3	267	219	25	11	0.1	18	0.16	315
FEB 09...	0.7	1.4	347	284	26	11	0.2	17	0.17	320
MAR 26...	0.7	1.3	373	306	28	12	0.1	17	0.17	324
APR 24...	0.7	1.4	341	280	29	12	0.2	17	0.16	321
MAY 23...	0.7	1.2	340	279	30	11	0.1	17	0.16	316
DATE	SOLVED (MG/L)	SOLIDS, DIS- TIENTS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + DIS- SOLVED (MG/L AS N)	PHOS- PHORUS ORGANIC DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	
OCT 24...	343	0.41	1.63	0.02	1.4	<0.02	<0.2	<0.01	<0.01	<0.01
NOV 28...	321	0.43	1.53	<0.01	1.5	<0.02	<0.2	<0.01	<0.01	<0.01
FEB 09...	355	0.44	1.56	<0.01	1.6	<0.02	<0.2	<0.01	<0.01	<0.01
MAR 26...	373	0.44	1.52	<0.01	1.8	<0.02	<0.2	<0.01	<0.01	<0.01
APR 24...	364	0.44	1.55	<0.01	1.8	<0.02	<0.2	<0.01	<0.01	<0.01
MAY 23...	359	0.43	1.37	<0.01	1.7	0.02	<0.2	<0.01	<0.01	<0.01

a-Field dissolved bicarbonate, determined by incremental titration method.

b-Field total dissolved alkalinity, determined by incremental titration method.

## SAN JUAN RIVER BASIN

**09362600 RAINBOW SPRINGS TROUT RANCH NEAR BONDAD, CO--Continued**

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-			DATE	TIME	DIS-		
		CHARGE, INST.	SPE- CIFIC CUBIC	TEMPER- FEET DUCT- PER SECOND			CHARGE, INST.	SPE- CIFIC CUBIC	TEMPER- FEET DUCT- PER SECOND
OCT 27...	1435	1.8	617	12.0	JUN 14...	0930	1.6	639	12.0
FEB 13...	0935	1.8	625	9.0	AUG 09...	0855	1.6	630	12.0

**09362800 LEMON RESERVOIR NEAR DURANGO, CO**

LOCATION.--Lat 37°22'57", long 107°39'44", in SE<sup>1/4</sup>SW<sup>1/4</sup> sec.17, T.36 N., R.7 W., LaPlata County, Hydrologic Unit 14080104, in gatehouse at Lemon Dam on Florida River, 2.3 mi upstream from True Creek, and 15 mi northeast of Durango.

DRAINAGE AREA.--68.3 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1989 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 7,948.00 ft above sea level, (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above sea level.

REMARKS.--Reservoir is formed by an earthfill dam. Dam was completed in 1963. Capacity, 40,100 acre-ft, between elevations 7,948.00 ft, sill of outlet gate, and 8,148.00 ft, normal reservoir water surface elevation. Dead storage below elevation 8,005.00 ft, 354 acre-ft. Figures given are total contents.

COOPERATION.--Records were provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 40,160 acre-ft, June 30, 1993, and July 1, 1995, elevation, 8,148.03 ft; minimum contents, 5,320 acre-ft, Sept. 13, 1996, elevation, 8,057.55 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 28,010 acre-ft, May 21, elevation, 8,126.82 ft; minimum contents, 5,320 acre-ft, Sept. 13, elevation, 8,057.55 ft.

## MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30. . . . .	8,116.25	22,780	
Oct. 31. . . . .	8,111.18	20,520	-2,260
Nov. 30. . . . .	8,108.54	19,410	-1,110
Dec. 31. . . . .	8,108.24	19,280	-130
CAL YR 1995. . . . .			+40
Jan. 31. . . . .	8,108.13	19,240	-40
Feb. 29. . . . .	8,108.04	19,200	-40
Mar. 31. . . . .	8,108.51	19,400	+200
Apr. 30. . . . .	8,113.80	21,670	+2,270
May 31. . . . .	8,122.40	25,740	+4,070
June 30. . . . .	8,103.30	17,320	-8,420
July 31. . . . .	8,086.89	11,840	-5,480
Aug. 31. . . . .	8,062.15	6,140	-5,700
Sept. 30. . . . .	8,063.54	6,400	+260
WTR YR 1996. . . . .			-16,380

**09363070 HIGHWAY SPRING NEAR LOMA LINDA, CO**

LOCATION--Lat 37°11'19", long 107°45'13", in NE<sup>1</sup>/4 SE<sup>1</sup>/4 sec.18U, T.34 N., R.8 W., La Plata County, Hydrologic Unit 14080104, on right bank 80 ft downstream from Colorado Highway 172, 150 ft upstream from irrigation ditch and mouth, and 10 mi southeast of Durango.

## DRAINAGE AREA.--Indeterminate.

## **WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--July 1995 to current year.

GAGE---Water-stage recorder. Elevation of gage is 6,680 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Florida Farmers Ditch diverts some project water from Florida River for irrigation of fields above the spring location. At times some return flow will enter the drainage upstream of the gage location.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

## 09363070 HIGHWAY SPRING NEAR LOMA LINDA, CO--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	.28	.23	.24	.08	.15	.18	.13	.11	.27	.99	.71
2	1.1	.27	.23	.23	.08	.15	.17	.12	.11	.27	.88	.72
3	1.1	.28	.23	.23	.08	.15	.15	.13	.11	.24	.94	.73
4	1.0	.29	.23	.24	.08	.16	.16	.18	.13	.23	.92	.41
5	1.0	.29	.23	.25	.08	.19	.15	.95	.12	.23	.98	.20
6	.98	.29	.23	.25	.07	.18	.14	.19	.12	.22	.99	.19
7	.95	.29	.23	.24	.04	.17	.13	.18	.12	.23	1.3	.18
8	.94	.29	.23	.25	.05	.17	.14	.19	.11	.32	1.2	.15
9	.94	.30	.23	.26	.17	.17	.13	.43	.12	.27	.98	.28
10	.95	.34	.23	.23	.20	.17	.14	.46	.12	.34	.56	.43
11	.94	.30	.23	.21	.20	.16	.14	.60	.13	.24	.50	.48
12	.78	.29	.23	.21	.21	.15	.14	.50	.13	.23	.41	.44
13	.63	.28	.23	.21	.22	.15	.17	.32	.14	.22	.34	.42
14	.48	.25	.26	.21	.21	.15	.16	.19	.16	.21	.53	.58
15	.40	.25	.23	.21	.21	.15	.15	.17	.17	.21	.29	.43
16	.37	.25	.23	.21	.21	.15	.14	.16	.18	.22	.42	.41
17	.35	.25	.23	.22	.21	.15	.15	.15	.18	.21	.46	.45
18	.34	.25	.23	.21	.20	.15	.14	.15	.18	.21	.42	.31
19	.32	.25	.23	.21	.18	.15	.14	.14	.19	.31	.27	.22
20	.31	.24	.23	.21	.20	.15	.15	.18	.19	.34	.26	.20
21	.31	.25	.23	.21	.19	.13	.14	.14	.23	.23	.26	.19
22	.30	.24	.23	.21	.18	.13	.14	.16	.25	.20	.52	.19
23	.32	.23	.22	.21	.17	.13	.13	.15	.21	.23	.93	.19
24	.32	.23	.22	.21	.17	.13	.13	.15	.23	.24	.91	.19
25	.31	.32	.23	.21	.17	.13	.11	.14	.31	.27	.89	.19
26	.31	.37	.25	.21	.16	.13	.12	.15	.29	.38	.99	.18
27	.30	.24	.25	.21	.16	.13	.12	.18	.54	.28	1.1	.18
28	.29	.23	.27	.21	.16	.13	.12	.16	.40	.24	1.1	.17
29	.29	.23	.27	.21	.15	.14	.12	.15	.29	.22	.92	.17
30	.29	.23	.27	.21	--	.14	.12	.13	.27	.25	.71	.18
31	.28	---	.27	.15	--	.15	--	.12	--	.94	.71	---
TOTAL	18.40	8.10	7.34	6.78	4.49	4.64	4.22	7.15	5.84	8.50	22.68	9.77
MEAN	.59	.27	.24	.22	.15	.15	.14	.23	.19	.27	.73	.33
MAX	1.2	.37	.27	.26	.22	.19	.18	.95	.54	.94	1.3	.73
MIN	.28	.23	.22	.15	.04	.13	.11	.12	.11	.20	.26	.15
AC-FT	36	16	15	13	8.9	9.2	8.4	14	12	17	45	19

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1996, BY WATER YEAR (WY)

MEAN	.59	.27	.24	.22	.15	.15	.14	.23	.19	.27	1.17	.67
MAX	.59	.27	.24	.22	.15	.15	.14	.23	.19	.27	1.60	1.02
(WY)	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996	1995	1995
MIN	.59	.27	.24	.22	.15	.15	.14	.23	.19	.27	.73	.33
(WY)	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996

## SUMMARY STATISTICS

## FOR 1996 WATER YEAR

## WATER YEARS 1995 - 1996

ANNUAL TOTAL					107.91							
ANNUAL MEAN					.29					.29		
HIGHEST ANNUAL MEAN										.29		1996
LOWEST ANNUAL MEAN										.29		1996
HIGHEST DAILY MEAN					1.3	Aug	7			3.3	Aug	5 1995
LOWEST DAILY MEAN					.04	Feb	7			.04	Feb	7 1996
ANNUAL SEVEN-DAY MINIMUM					.07	Feb	2			.07	Feb	2 1996
INSTANTANEOUS PEAK FLOW					2.3	May	5			3.7	Aug	5 1995
INSTANTANEOUS PEAK STAGE					.87	May	5			1.08	Aug	5 1995
ANNUAL RUNOFF (AC-FT)					214							
10 PERCENT EXCEEDS					.61							
50 PERCENT EXCEEDS					.22							
90 PERCENT EXCEEDS					.13							

## SAN JUAN RIVER BASIN

**09363070 HIGHWAY SPRING NEAR LOMA LINDA, CO--Continued**

## **WATER-QUALITY RECORDS**

PERIOD OF RECORD.--June 1995 to May 1996 (discontinued).

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE , INST. CUBIC FEET						SPE- CIFIC CON- DUCT-	PH ( STAND- ANCE )	TEMPER- ATURE ( DEG C )	OXYGEN , DIS- SOLVED ( MG/L )	HARD- NESS TOTAL ( MG/L )	CALCIUM AS CACO3 )	MAGNE- SIUM , DIS- SOLVED ( MG/L )	SODIUM , DIS- SOLVED ( MG/L )	SODIUM AD- SORP- TION RATIO
		PER SECOND	SECON	( US/CM )	UNITS )	( DEG C )	SOLVED ( MG/L )	AS CACO3 )	AS CA )	( MG/L )	AS MG )	AS NA )	( MG/L )	AS MG )	AS NA )	0.5
JUN 13...	1430	0.28	540	7.9	15.0	8.0	250	82	11	27	0.7					
JUL 25...	1200	0.42	449	8.1	14.0	8.4	220	73	9.9	21	0.6					
AUG 31...	1030	0.94	429	8.2	15.5	7.3	190	62	8.6	17	0.5					
SEP 26...	1620	1.3	349	8.1	16.0	7.1	160	51	6.9	13	0.5					

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-		SPE-	TEMPER-
		CHARGE,	INST.		
		CUBIC	CON-	DUCT-	WATER
		FEET	ANCE	( US / CM )	( DEG C )
SECOND					
AUG 04...	1245	3 . 3		214	19 . 0

a-Field dissolved bicarbonate, determined by incremental titration method.

b-Field total dissolved alkalinity, determined by incremental titration method.

## 09363070 HIGHWAY SPRING NEAR LOMA LINDA, CO--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT 25...	1430	0.31	522	8.2	9.0	9.1	250	80	11	29
NOV 28...	1410	0.25	567	8.2	4.0	10.8	260	83	12	30
FEB 09...	1200	0.19	562	8.2	3.0	13.0	270	88	12	29
MAR 26...	1350	0.14	548	8.3	6.5	9.5	240	76	11	28
APR 24...	1200	0.13	542	8.2	9.0	9.0	240	77	12	30
MAY 23...	1355	0.14	547	8.3	13.5	8.4	230	74	12	30
<hr/>										
DATE	RATIO	SODIUM AD-SORPTION TION RATIO	POTAS-SIUM, BONATE WATER DIS-SOLVED (MG/L AS K)	BICAR-a POTAS-SIUM, BONATE WATER DIS-SOLVED (MG/L AS HCO3)	CAR-b BONATE WATER FIELD CO3)	ALKA-c LINTY WAT DIS TOT IT FIELD (MG/L AS CACO3)	CHLO- RIDE, SULFATE DIS-SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	BROMIDE DIS-SOLVED (MG/L AS BR)
OCT 25...	0.8	0.70	325	--	266	21	6.0	--	16	0.11
NOV 28...	0.8	0.70	345	--	282	22	7.0	0.3	15	0.14
FEB 09...	0.8	0.90	359	--	294	23	7.8	0.3	14	0.12
MAR 26...	0.8	0.80	304	16	263	25	8.7	0.2	13	0.11
APR 24...	0.8	0.70	330	--	271	25	8.5	0.2	14	0.11
MAY 23...	0.9	0.60	321	--	263	24	8.0	0.2	16	0.12
<hr/>										
DATE	RESIDUE AT 180 DEG. C	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE NO2+NO3	NITRO- GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS-SOLVED (MG/L AS N)	NITRO- GEN, PHOS- PHORUS DIS-SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	
OCT 25...	303	324	0.41	0.25	0.01	0.18	<0.02	<0.2	0.02	0.02
NOV 28...	302	341	0.41	0.20	<0.01	0.24	<0.02	<0.2	<0.01	<0.01
FEB 09...	342	353	0.47	0.18	<0.01	0.34	<0.02	<0.2	<0.01	<0.01
MAR 26...	319	330	0.43	0.12	<0.01	0.29	<0.02	<0.2	<0.01	0.01
APR 24...	291	331	0.40	0.10	0.01	0.25	<0.02	<0.2	<0.01	<0.01
MAY 23...	313	323	0.43	0.12	<0.01	0.14	0.02	<0.2	<0.01	<0.01

a-Field dissolved bicarbonate, determined by incremental titration method.

b-Field carbonate, determined by incremental titration method.

c-Field total dissolved alkalinity, determined by incremental titration method.

**09363070 HIGHWAY SPRING NEAR LOMA LINDA, CO--Continued**

## MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DIS- CHARGE, INST. CUBIC FEET						DIS- CHARGE, INST. CUBIC FEET					
DATE		TIME		SPE- CIFIC CON- DUCT-	TEMPER- ATURE	DATE		SPE- CIFIC CON- DUCT-	TEMPER- ATURE		
PER	ANCE	WATER	PER	ANCE	WATER						
SECOND	(US/CM)	(DEG C)	SECOND	(US/CM)	(DEG C)						
OCT 27...		1550	0.29	553	10.0	JUN 14...		1120	0.17	510	15.0
NOV 30...		1245	0.23	580	4.5	AUG 09...		1010	1.2	215	16.5
FEB 13...		1045	0.21	584	3.0						

## 09363500 ANIMAS RIVER NEAR CEDAR HILL, NM

LOCATION.--Lat 37°02'17", long 107°52'25", in sec.7, T.32 N., R.9 W., La Plata County, Colorado, Hydrologic Unit 14080104, on right bank 0.8 mi downstream from Florida River, 2.5 mi upstream from Colorado-New Mexico State line, 8.5 mi north of Cedar Hill, and at mile 32.9.

DRAINAGE AREA.--1,090 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--October 1933 to current year. Monthly discharge only for October and November 1933, published in WSP 1313.

REVISED RECORDS.--WSP 1563: 1940 and 1946 (monthly figures only).

GAGE.--Water-stage recorder. Elevation of gage is 5,960 ft above sea level, from topographic map. Prior to Sept. 14, 1937, at datum between 1.52 ft and 1.36 ft higher. Sept. 15, 1937 to Sept. 30, 1946, at datum 1.36 ft higher.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 20,000 acres upstream from station. During water years 1944-49, Twin Rocks Canal diverted upstream from station for irrigation downstream. Slight regulation by Lemon Dam about 30 mi upstream on Florida River since November 1963 (capacity, 40,100 acre ft). Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred in October 1911 at this location.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	686	327	283	e240	236	235	305	1050	928	897	238	223
2	657	327	279	232	236	242	333	1210	1050	830	240	214
3	e620	320	277	e240	218	244	396	1410	1270	770	237	199
4	e580	298	276	e243	e220	245	426	1600	1440	709	249	195
5	e540	287	276	e245	216	263	432	1830	1520	682	252	199
6	501	286	275	e240	230	269	398	2100	1560	637	233	e190
7	481	288	269	232	232	260	386	2260	1620	596	231	e180
8	484	287	269	236	219	243	422	2250	1620	591	235	e190
9	477	286	269	229	228	251	516	2410	1530	705	227	e200
10	458	303	256	214	233	254	697	2180	1390	648	222	e230
11	456	307	254	218	232	269	783	2250	1280	631	213	e250
12	445	286	255	211	234	280	733	2710	1190	560	199	e270
13	440	297	258	212	236	294	678	3110	1110	528	190	e330
14	483	297	263	211	237	293	628	3030	1230	497	181	e480
15	493	297	265	210	237	296	546	3100	1360	487	180	e500
16	468	297	257	215	247	275	503	3350	1150	427	178	e500
17	433	292	252	242	249	275	520	3550	1090	451	130	e520
18	421	285	259	235	250	276	521	3430	1070	430	141	e570
19	422	283	255	225	249	276	495	3240	1010	450	140	e550
20	427	283	242	219	253	273	458	3160	961	421	138	e530
21	417	281	236	229	280	273	449	2790	991	386	158	e520
22	406	272	236	e220	276	282	418	2580	1380	353	167	e510
23	359	276	238	e225	274	309	410	2270	1340	325	185	e500
24	346	279	239	e230	261	330	445	e1900	1040	326	247	e480
25	342	279	e240	e230	255	333	670	e1600	895	301	224	e460
26	342	287	e240	e230	255	325	1040	e1300	808	280	310	438
27	339	293	e242	e230	254	314	1270	e1100	834	263	349	439
28	333	273	e245	e235	232	301	1440	e950	1080	248	341	419
29	327	263	e245	e235	230	301	1240	e850	1120	240	313	412
30	327	278	e240	--	304	1020	828	922	261	279	379	
31	327	--	e240	239	--	304	--	908	--	259	246	--
TOTAL	13837	8714	7930	7092	7009	8689	18578	66306	35789	15189	6873	11077
MEAN	446	290	256	229	242	280	619	2139	1193	490	222	369
MAX	686	327	283	245	280	333	1440	3550	1620	897	349	570
MIN	327	263	236	210	216	235	305	828	808	240	130	180
AC-FT	27450	17280	15730	14070	13900	17230	36850	131500	70990	30130	13630	21970

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1996, BY WATER YEAR (WY)												
MEAN	464	340	267	244	260	423	1085	2515	3018	1263	612	520
MAX	2479	1068	555	388	467	1043	2191	5686	6145	3710	1681	1922
(WY)	1942	1942	1987	1973	1987	1993	1985	1941	1957	1957	1957	1970
MIN	169	158	159	169	151	141	273	449	458	223	222	155
(WY)	1957	1934	1957	1954	1964	1977	1977	1934	1934	1996	1996	1956

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1934 - 1996
ANNUAL TOTAL	487655	207083	
ANNUAL MEAN	1336	566	
HIGHEST ANNUAL MEAN			927
LOWEST ANNUAL MEAN			1713
HIGHEST DAILY MEAN	7700	Jun 16	1941
LOWEST DAILY MEAN	e220	Jan 19	1977
ANNUAL SEVEN-DAY MINIMUM	239	Dec 20	340
INSTANTANEOUS PEAK FLOW		4020	1949
INSTANTANEOUS PEAK STAGE		7.61	1949
INSTANTANEOUS LOW FLOW		117	1949
ANNUAL RUNOFF (AC-FT)	967300	410700	671700
10 PERCENT EXCEEDS	3920	1270	2430
50 PERCENT EXCEEDS	694	299	406
90 PERCENT EXCEEDS	269	224	210

## SAN JUAN RIVER BASIN

**09365500 LA PLATA RIVER AT HESPERUS, CO**

LOCATION.--Lat  $37^{\circ}17'23''$ , long  $108^{\circ}02'24''$ , in NE $1/4$ SW $1/4$  sec.14, T.35 N., R.11 W., La Plata County, Hydrologic Unit 14080105, on right bank at Hesperus, 700 ft downstream from U.S. Highway 160.

DRAINAGE AREA.--37 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--June to August 1904, May 1905 to September 1906, August to November 1910, June 1917 to current year.

Monthly discharge only for some periods, published in WSP 1313. Records for Nov. 11 to Dec. 31, 1910, published in WSP 289, have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1243: 1906(M). WSP 1563: 1923 (monthly figures only). See also PERIOD OF RECORD.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 8,104.71 ft above sea level. Prior to May 1, 1920, nonrecording gage, and May 1, 1920 to May 24, 1927, water-stage recorder, at several sites about 600 ft downstream at different datums.

May 25, 1927 to Sept. 30, 1938, water-stage recorder at site 60 ft downstream and Oct. 1, 1938 to Sept. 30, 1941, at present site at datum 1.00 ft, higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. Cherry Creek ditch exports water upstream from station for irrigation of about 2,000 acres in Cherry Creek drainage.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood observed occurred Oct. 5, 1911.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	e8.0	8.1	e6.0	5.6	e7.0	20	75	32	26	11	17
2	13	8.0	8.4	e5.0	5.4	e7.0	21	94	40	20	10	17
3	13	8.0	8.4	e5.0	e5.5	e7.0	21	99	42	19	11	16
4	13	8.0	8.4	e6.0	e5.0	8.0	20	105	44	18	11	14
5	14	7.4	8.3	e6.0	e5.5	8.5	20	116	43	19	9.7	14
6	14	7.2	7.8	e6.0	5.7	e8.0	21	124	43	18	9.3	13
7	13	7.2	7.7	e6.0	e5.5	e7.0	22	124	43	19	8.8	12
8	13	7.2	7.6	e6.0	5.6	e8.0	31	118	40	18	8.4	11
9	13	7.2	7.5	e6.0	e5.5	e9.0	62	115	36	18	8.8	11
10	12	7.9	7.2	6.0	5.8	9.8	76	95	33	19	8.5	10
11	12	7.9	6.8	e6.0	5.7	9.9	60	108	32	18	7.9	10
12	12	8.0	6.8	e6.0	5.8	10	49	127	32	17	7.5	10
13	11	7.9	7.1	e6.0	6.0	10	49	134	30	17	7.1	10
14	11	7.6	7.2	e6.0	6.2	e9.0	41	126	33	16	7.2	13
15	11	7.6	e6.0	e6.0	6.3	9.7	37	125	31	15	7.0	16
16	e10	7.6	6.0	e6.0	6.4	9.8	36	126	26	15	6.4	22
17	e10	7.5	6.3	e6.0	6.6	10	38	118	23	16	6.5	23
18	e10	7.2	6.0	e5.0	7.0	e10	35	105	23	25	6.5	21
19	e10	7.2	e6.0	e5.0	6.8	e10	32	98	23	20	6.5	20
20	e10	7.2	e6.0	e5.0	9.1	11	30	88	22	18	6.4	20
21	e10	e7.2	e5.5	e5.5	9.6	12	28	77	22	19	7.1	20
22	e9.0	e7.2	e5.5	e5.5	8.1	12	27	71	22	18	6.4	19
23	e8.0	7.2	e5.5	5.7	e8.0	13	29	60	17	17	6.6	18
24	e8.0	7.2	e5.5	5.6	e7.0	13	59	45	18	15	6.9	18
25	e8.0	7.2	e5.5	e6.0	e7.0	13	106	37	19	14	6.2	18
26	e8.0	7.6	e6.0	e5.0	e7.0	14	135	28	19	14	8.1	16
27	e8.0	7.6	e6.0	e4.0	e7.0	14	149	23	20	13	8.1	15
28	e8.0	e7.5	e5.5	e5.0	e6.0	16	136	20	20	13	7.8	14
29	e8.0	8.0	e4.5	5.4	e7.0	18	80	19	21	12	11	14
30	e8.0	8.0	e5.0	5.2	---	18	66	21	23	12	15	14
31	e8.0	---	e7.0	5.5	---	19	---	25	---	11	16	---
TOTAL	329.0	226.5	205.1	173.4	187.7	340.7	1536	2646	872	529	264.7	466
MEAN	10.6	7.55	6.62	5.59	6.47	11.0	51.2	85.4	29.1	17.1	8.54	15.5
MAX	14	8.0	8.4	6.0	9.6	19	149	134	44	26	16	23
MIN	8.0	7.2	4.5	4.0	5.0	7.0	20	19	17	11	6.2	10
AC-FT	653	449	407	344	372	676	3050	5250	1730	1050	525	924

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1918 - 1996, BY WATER YEAR (WY)

MEAN	15.2	10.6	8.20	7.02	7.42	15.1	82.8	172	134	38.6	23.3	20.1
MAX	148	54.3	20.4	15.0	18.0	50.7	203	384	421	154	75.4	124
(WY)	1942	1942	1987	1926	1971	1989	1924	1941	1980	1957	1957	1927
MIN	3.27	3.11	2.94	2.65	3.06	3.83	8.40	19.8	15.6	8.80	6.58	3.73
(WY)	1957	1938	1938	1938	1990	1977	1977	1977	1934	1939	1939	1956

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1918 - 1996
ANNUAL TOTAL	21555.3	7776.1	
ANNUAL MEAN	59.1	21.2	44.6
HIGHEST ANNUAL MEAN			90.5
LOWEST ANNUAL MEAN			9.94
HIGHEST DAILY MEAN	523	Jun 15	941
LOWEST DAILY MEAN	e4.5	Dec 29	1977
ANNUAL SEVEN-DAY MINIMUM	5.4	Dec 24	
INSTANTANEOUS PEAK FLOW		149 Apr 27	
INSTANTANEOUS PEAK STAGE		149 Apr 27	
ANNUAL RUNOFF (AC-FT)	42750	15420	32320
10 PERCENT EXCEEDS	175	44	127
50 PERCENT EXCEEDS	19	10	13
90 PERCENT EXCEEDS	7.0	6.0	5.2

e-Estimated.

a-Present datum, from rating curve extended above 620 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow.

b-Maximum gage height, 3.20 ft. Jan 18, backwater from ice.

c-Maximum gage height, for period of record, 5.13 ft, Sep 6, 1970.

**09366500 LA PLATA RIVER AT COLORADO-NEW MEXICO STATE LINE**

LOCATION.--Lat 36°59'59", long 108°11'17", in NW<sup>1/4</sup>SE<sup>1/4</sup> sec.10, T.32 N., R.13 W., La Plata County, CO, Hydrologic Unit 14080105, on right bank at Colorado-New Mexico State line, 0.5 mi downstream from Johnny Pond Arroyo, and 4.9 mi north of La Plata, NM.

DRAINAGE AREA.--331 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1920 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1313: 1934 (M), 1936 (M).

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 5,972.03 ft above sea level. See WSP 1713 or 1733 for history of changes prior to Mar. 17, 1934. Mar. 17, 1934 to July 1, 1996, water-stage recorder at same site, and at datum 3.12 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 15,000 acres, mostly upstream from station.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	12	13	e14	16	14	5.7	44	10	4.2	2.9	4.0
2	6.5	12	13	e13	15	14	4.4	46	12	4.3	3.1	3.9
3	6.0	12	13	e12	15	14	5.0	44	15	2.9	3.2	4.0
4	6.2	12	13	e13	17	15	5.0	56	18	2.6	3.5	3.8
5	7.3	12	13	e14	18	16	6.0	59	18	3.0	3.4	3.8
6	8.7	12	13	e14	15	15	6.3	62	18	2.9	3.1	4.3
7	8.9	12	13	e14	15	14	5.6	61	19	3.1	2.9	4.0
8	8.0	11	14	e14	15	14	5.3	66	17	3.4	2.9	3.7
9	8.1	12	13	e14	15	14	6.1	76	15	2.9	3.4	3.7
10	8.0	13	12	14	15	15	16	65	13	3.4	4.2	3.5
11	8.1	13	12	e13	15	14	34	62	11	3.1	3.5	3.6
12	7.7	13	13	e14	15	14	36	60	10	2.5	2.9	4.0
13	7.7	13	13	e14	15	15	39	58	11	2.4	2.7	5.3
14	7.4	13	15	e14	15	15	34	62	15	2.1	2.7	7.2
15	7.7	12	14	e14	15	15	19	65	21	1.7	2.7	6.6
16	7.6	12	14	e15	15	14	15	68	14	.98	2.6	6.0
17	7.1	12	14	e16	15	14	14	64	9.6	1.3	2.6	5.9
18	6.8	12	14	e15	18	14	14	62	6.6	1.1	2.6	6.4
19	6.8	13	14	e15	16	13	14	63	5.6	2.3	2.8	6.6
20	7.4	13	14	e14	19	12	13	65	6.0	2.5	2.8	5.2
21	8.0	13	e14	e14	20	12	12	55	7.4	2.1	3.9	4.2
22	8.7	13	e13	e14	19	12	9.8	54	7.3	2.0	3.6	4.0
23	9.4	13	e12	e14	17	10	10	48	4.1	1.8	4.4	3.9
24	9.6	13	e12	e14	15	8.9	10	40	4.1	1.7	4.4	4.2
25	9.7	13	e13	e14	15	9.3	24	37	4.0	1.6	3.9	4.4
26	9.8	13	e13	e13	16	8.8	47	28	3.8	2.2	4.1	4.4
27	9.4	13	e13	e14	15	8.7	59	18	41	2.2	4.1	4.5
28	9.3	15	e14	e14	15	8.3	70	11	12	3.5	4.8	4.6
29	10	13	e14	e15	15	8.9	46	8.2	5.8	3.3	4.7	4.8
30	10	13	e14	e15	---	9.3	48	8.5	3.9	3.2	4.4	4.8
31	10	---	e14	e14	15	---	7.7	---	9.7	---	2.8	4.0
TOTAL	253.1	378	413	436	461	388.9	633.2	1525.4	358.2	79.08	106.8	139.3
MEAN	8.16	12.6	13.3	14.1	15.9	12.5	21.1	49.2	11.9	2.55	3.45	4.64
MAX	10	15	15	16	20	16	70	76	41	4.3	4.8	7.2
MIN	6.0	11	12	12	15	7.7	4.4	8.2	3.8	.98	2.6	3.5
AC-FT	502	750	819	865	914	771	1260	3030	710	157	212	276

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 1996, BY WATER YEAR (WY)

MEAN	13.9	11.9	12.2	11.7	17.0	36.3	107	110	67.3	20.3	11.8	11.2
MAX	260	99.2	53.9	38.3	53.9	130	363	506	306	99.4	65.1	126
(WY)	1942	1942	1987	1942	1924	1993	1980	1941	1957	1957	1957	1927
MIN	.097	.98	1.24	.80	2.96	.63	3.06	5.32	1.94	.019	.006	.000
(WY)	1935	1940	1978	1930	1977	1977	1977	1977	1924	1922	1922	1956

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1921 - 1996
ANNUAL TOTAL	16028.5	5171.98	
ANNUAL MEAN	43.9	14.1	35.9
HIGHEST ANNUAL MEAN			109
LOWEST ANNUAL MEAN			4.44
HIGHEST DAILY MEAN	343	Jun 16	1941
LOWEST DAILY MEAN	3.2	Sep 25	1922
ANNUAL SEVEN-DAY MINIMUM	3.8	Sep 20	1922
INSTANTANEOUS PEAK FLOW		227	Aug 24 1927
INSTANTANEOUS PEAK STAGE		4.36	Aug 24 1927
ANNUAL RUNOFF (AC-FT)	31790	10260	26020
10 PERCENT EXCEEDS	111	25	86
50 PERCENT EXCEEDS	19	12	12
90 PERCENT EXCEEDS	7.5	3.1	1.6

e-Estimated.

a-No flow at times in many years.

b-From rating curve extended above 750 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow, at datum then in use.

## SAN JUAN RIVER BASIN

**09371000 MANCOS RIVER NEAR TOWAOC, CO**

**LOCATION.**--Lat 37°01'39", long 108°44'27", Ute Indian Reservation, Montezuma County, Hydrologic Unit 14080107, on left bank 700 ft upstream from bridge on U.S. Highway 666, 2.0 mi north of Colorado-New Mexico State line, 6.0 mi upstream from Aztec Creek, and 12 mi south of Towaoc.

**DRAINAGE AREA.**--526 mi<sup>2</sup>.

**PERIOD OF RECORD.**--October 1920 to September 1943, February 1951 to current year. Monthly discharge only for some periods, published in WSP 1313. Water-quality data available, August 1969 to June 1972, October 1983 to September 1986. Sediment data available, April to December 1961.

**REVISED RECORDS.**--WSP 1733: 1924 (monthly figures only). WDR CO-83-3: Drainage area.

**GAGE.**--Water-stage recorder. Datum of gage is 5,055.98 ft above sea level. See WSP 1713 or 1733 for history of changes prior to Mar. 11, 1954.

**REMARKS.**--Records poor. Diversions for irrigation of about 10,000 acres upstream from station. One diversion upstream from station for irrigation of about 100 acres downstream from station. Flow regulated by Jackson Gulch Reservoir, capacity, 10,000 acre-ft since March 1949. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	16	12	e9.5	e11	13	16	8.4	e.00	2.2	e.30	e.20
2	24	16	11	e10	e11	12	16	4.1	e.00	.67	e.25	e.15
3	22	15	11	e9.6	e9.9	13	15	1.9	e.00	1.5	e.22	e.11
4	21	15	12	e9.4	e11	14	15	.72	e.00	.94	e.18	e.10
5	20	15	13	e9.4	e14	15	15	.55	e.00	e.49	e.17	e.10
6	20	14	13	e10	17	15	16	.59	e.00	e.35	e.16	e.00
7	20	14	12	e10	15	19	15	.58	e.00	e.25	e.16	e.00
8	20	14	13	e9.4	20	18	14	e.49	e.00	e.21	e.21	e.00
9	31	14	13	e10	26	15	14	e.42	e.00	e.19	e.30	e.00
10	20	14	e9.2	e10	30	15	18	e.35	e.00	e.18	e.60	e.00
11	19	23	e9.1	e10	33	15	28	e.28	e.00	e.17	e.30	e.00
12	18	21	e9.4	e11	33	15	30	e.24	e.00	e.16	e.25	e.15
13	18	20	e10	e11	30	16	28	e.19	e.00	e.32	e.21	e.25
14	18	20	e11	e11	31	17	28	e.16	e.00	7.2	e.19	35
15	18	20	e10	e11	32	17	27	e.13	e.00	6.8	e.18	59
16	18	20	e9.3	e11	30	17	24	e.11	e.00	2.5	e.17	23
17	18	21	e8.3	e11	29	16	19	e.10	e.00	6.1	e.16	11
18	18	21	e8.7	e10	25	16	15	e.00	e.00	7.5	e.16	7.5
19	17	21	e8.4	e10	25	15	14	e.00	e.00	13	e.16	8.7
20	16	21	e7.9	e9.7	22	13	13	e.00	e.00	6.3	e.16	16
21	16	21	e5.1	e9.4	22	12	10	e.00	e.00	3.4	e.16	12
22	16	19	e5.7	e9.7	35	12	9.9	e.00	e.00	1.6	e.28	11
23	16	16	e6.0	e9.9	29	12	9.0	e.00	e.00	.65	e1.6	8.9
24	16	16	e6.2	e9.9	22	13	8.0	e.00	e.00	e.30	1.8	7.8
25	16	16	e5.7	e9.9	18	14	7.0	e.00	e.00	e.20	6.0	7.5
26	16	14	e4.6	e9.6	17	15	17	e.00	e.32	e.18	12	8.9
27	16	13	e6.8	e9.5	17	16	29	e.00	e1.0	e.17	4.8	9.1
28	17	11	e8.0	e9.5	13	16	36	e.00	38	e.16	147	9.2
29	17	9.7	e7.8	e9.9	13	16	31	e.00	16	e.50	3.0	9.5
30	17	12	e6.8	e11	---	16	19	e.00	6.0	1.5	e.30	9.5
31	16	---	e8.1	e11	---	16	---	e.00	---	.69	e.20	---
TOTAL	585	502.7	282.1	312.3	640.9	464	555.9	19.31	61.32	66.38	181.63	254.66
MEAN	18.9	16.8	9.10	10.1	22.1	15.0	18.5	.62	2.04	2.14	5.86	8.49
MAX	31	23	13	11	35	19	36	8.4	38	13	147	59
MIN	16	9.7	4.6	9.4	9.9	12	7.0	.00	.00	.16	.16	.00
AC-FT	1160	997	560	619	1270	920	1100	38	122	132	360	505

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 1996, BY WATER YEAR (WY)

MEAN	26.4	19.5	14.4	13.5	25.9	58.8	126	177	85.7	29.4	28.6	26.0
MAX	459	113	45.5	45.6	92.1	198	330	642	395	185	364	137
(WY)	1942	1987	1942	1942	1993	1993	1980	1922	1957	1921	1921	1970
MIN	.11	1.00	.39	.31	7.24	5.26	.15	.000	.000	.000	.000	.000
(WY)	1978	1935	1960	1960	1977	1977	1977	1959	1951	1939	1922	1922

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1921 - 1996
ANNUAL TOTAL	24471.5	3926.20	
ANNUAL MEAN	67.0	10.7	
HIGHEST ANNUAL MEAN			51.8
LOWEST ANNUAL MEAN			138
HIGHEST DAILY MEAN	679	Jun 18	4.28
LOWEST DAILY MEAN	e4.6	Dec 26	1959
ANNUAL SEVEN-DAY MINIMUM	5.7	Dec 21	
INSTANTANEOUS PEAK FLOW		1010	
INSTANTANEOUS PEAK STAGE		4.99	
ANNUAL RUNOFF (AC-FT)	48540	7790	37560
10 PERCENT EXCEEDS	176	21	145
50 PERCENT EXCEEDS	27	10	16
90 PERCENT EXCEEDS	9.9	.00	.10

e-Estimated.

a-Also occurred May 19 to Jun 25, and Sep 6-11.

b-No flow at times in most years.

c-Present site and datum, from rating curve extended above 200 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow.

d-Maximum gage height, 8.50 ft, Sep 6, 1970.

## SAN JUAN RIVER BASIN

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## 09371010 SAN JUAN RIVER AT FOUR CORNERS, CO

LOCATION.--Lat 37°00'20", long 109°02'00", SE<sup>1/4</sup>NE<sup>1/4</sup> sec.21, T.32 N., R.20 W., Montezuma County, Hydrologic Unit 14080201, on left bank 1,300 ft upstream from bridge on U.S. Highway 160, 0.1 mi north of New Mexico-Colorado State line, 1.0 mi east of Four Corners Monument, 3.0 mi downstream from Mancos River, and at mile 187.2.

DRAINAGE AREA.--14,600 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,900 ft above sea level, from topographic map.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are poor. Flow partly regulated by Navajo Reservoir (09355100).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1310	1110	1170	879	964	780	579	858	2550	1530	e220	e510
2	1340	1100	1140	877	991	841	608	e840	2780	1540	e220	e470
3	1250	1070	1120	856	923	853	556	e950	3000	1190	e210	e430
4	1250	1070	1120	832	846	872	523	e1150	3100	1070	e210	e410
5	1180	1070	1110	846	828	886	535	e1500	3400	971	e220	e360
6	1230	1070	1100	927	837	844	564	e1780	3440	894	e200	e430
7	1170	1140	1170	926	847	862	551	e1900	3380	824	e220	e530
8	1120	1120	1130	911	842	843	525	e2200	3440	756	e260	e510
9	1100	1130	1120	896	895	804	569	e2160	3420	691	e340	e450
10	972	1140	1110	898	912	796	532	e2300	3290	607	e400	e400
11	1020	1150	1100	869	924	796	579	e2200	3160	580	e390	e380
12	1000	1180	1120	690	915	814	908	e2150	3110	689	e370	e450
13	957	1140	1090	630	905	761	819	e2700	3040	641	e320	e700
14	898	1140	1110	632	898	753	798	e3100	2910	579	e260	e1040
15	938	1130	1140	636	893	805	752	e2910	3150	549	e190	1580
16	1030	1140	1140	637	898	801	648	3080	3330	507	e190	1790
17	1010	1140	1100	631	905	794	556	3290	3070	1040	e180	1390
18	953	1110	1100	689	898	813	501	3540	2930	997	e190	1310
19	951	1170	1100	688	885	789	456	3480	2830	1070	e190	1420
20	951	1180	1130	656	925	753	406	3280	2770	965	e190	1550
21	946	1180	1170	615	839	725	e390	3220	2770	856	e200	1360
22	974	1170	1120	607	863	743	e350	2770	2920	719	e220	1240
23	1050	1130	1100	576	880	723	e330	2520	3220	557	e650	1170
24	1140	1150	1090	611	869	690	e330	2260	3250	431	e1070	1120
25	1160	1150	1100	667	837	700	e310	1880	2790	e350	1100	1020
26	1120	1160	1100	675	771	700	e360	1500	2250	e300	1360	e950
27	1200	1160	1110	956	789	685	e680	1220	2390	e270	1230	e1030
28	1160	1190	955	1070	788	646	1080	1150	2410	e250	1400	e980
29	1140	1170	856	1020	785	604	1250	1080	1880	e240	1260	e910
30	1120	1160	823	929	---	609	1140	1530	1610	e230	1020	e850
31	1110	---	839	952	---	627	---	2030	---	e230	e750	---
TOTAL	33750	34120	33683	24284	25352	23712	18185	66528	87590	22123	15230	26740
MEAN	1089	1137	1087	783	874	765	606	2146	2920	714	491	891
MAX	1340	1190	1170	1070	991	886	1250	3540	3440	1540	1400	1790
MIN	898	1070	823	576	771	604	310	840	1610	230	180	360
AC-FT	66940	67680	66810	48170	50290	47030	36070	132000	173700	43880	30210	53040

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1996, BY WATER YEAR (WY)

MEAN	1273	1418	1462	1547	1666	2187	3146	4730	5314	2520	1361	1328
MAX	2959	3732	3466	3300	3365	5454	7893	10220	10370	6846	3016	3243
(WY)	1987	1987	1987	1987	1987	1993	1979	1979	1979	1979	1986	1986
MIN	634	838	799	760	739	707	606	1030	1236	714	259	467
(WY)	1978	1980	1990	1990	1990	1990	1996	1981	1989	1996	1978	1989

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1978 - 1996
ANNUAL TOTAL	1065148	411297	
ANNUAL MEAN	2918	1124	2329
HIGHEST ANNUAL MEAN			4180
LOWEST ANNUAL MEAN			991
HIGHEST DAILY MEAN	12100	Jun 19	1987
LOWEST DAILY MEAN	816	Jan 25	1990
ANNUAL SEVEN-DAY MINIMUM	859	Jan 19	1979
INSTANTANEOUS PEAK FLOW		4170	May 29 1979
INSTANTANEOUS PEAK STAGE		3.45	May 15 1979
INSTANTANEOUS LOW FLOW		170	6.25 Aug 17 1978
ANNUAL RUNOFF (AC-FT)	2113000	815800	1687000
10 PERCENT EXCEEDS	7200	2440	5620
50 PERCENT EXCEEDS	1340	950	1480
90 PERCENT EXCEEDS	937	397	715

e-Estimated.

a-Maximum gage height, 14.43 ft, Dec. 12, 1978 (backwater from ice).

## SAN JUAN RIVER BASIN

**09371492 MUD CREEK AT HIGHWAY 32, NEAR CORTEZ, CO**

LOCATION.--Lat  $37^{\circ}18'46''$ , long  $108^{\circ}39'38''$ , in SW $^{1/4}$ SW $^{1/4}$  sec.6, T.35 N., R.16 W., Montezuma County, Hydrologic Unit 14080202, on left bank 1 mi upstream from mouth and 4.5 mi southwest of Cortez.

DRAINAGE AREA.--33.6 mi $^2$ .

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--October 1981 to September 1986, August 1993 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 5,765 ft above sea level, from topographic map. Prior to Aug. 25, 1993, gage at present site and datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Some small diversions upstream from station for irrigation. Most of flow is from diversion of water from Dolores River through Dolores Project and Montezuma Valley Irrigation Company.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	1.8	2.0	e1.7	2.7	1.7	1.5	3.4	14	8.9	14	15
2	13	1.8	2.1	e1.6	2.5	1.7	1.5	7.6	13	8.9	14	13
3	13	1.7	2.0	e1.5	4.1	1.7	1.5	7.8	13	10	16	12
4	11	1.7	1.9	e1.6	2.6	1.7	1.3	5.6	13	9.3	13	13
5	9.6	1.7	1.9	e1.7	1.8	1.9	1.2	5.5	13	11	12	11
6	9.4	1.8	1.9	e1.7	2.9	2.4	1.1	7.1	14	9.6	13	13
7	9.8	1.7	1.9	e1.6	8.7	1.8	1.2	8.9	13	11	14	15
8	9.4	1.7	e2.0	e1.6	2.7	1.6	1.3	9.0	13	13	13	13
9	8.7	1.8	e1.9	e1.6	2.4	1.6	1.1	9.8	13	14	13	12
10	8.0	2.5	e1.9	e1.5	2.3	1.6	1.2	10	13	11	13	12
11	7.6	2.0	e1.9	e1.6	2.2	1.5	1.3	11	12	12	14	12
12	2.8	1.9	e2.0	e1.6	2.1	1.6	1.3	9.2	13	12	13	10
13	2.2	1.9	e2.0	e1.6	2.0	1.6	2.1	10	13	12	13	12
14	2.0	1.9	e2.0	e1.6	2.0	1.5	2.4	11	15	16	13	18
15	2.3	1.7	e1.9	e1.6	1.9	1.4	1.6	11	16	14	15	19
16	2.2	1.7	e1.9	e1.6	1.9	1.4	1.3	11	13	12	13	13
17	2.0	1.7	e1.9	e1.7	1.9	1.4	1.5	13	15	26	15	11
18	1.9	1.7	e1.9	e1.7	2.0	1.3	1.7	14	14	18	15	10
19	1.7	1.7	e1.8	e1.6	1.9	1.3	1.8	13	13	16	15	10
20	1.8	1.7	e1.5	e1.6	2.0	1.3	1.7	13	13	14	14	7.6
21	2.7	1.9	e1.5	e1.6	2.4	1.3	1.5	13	15	13	14	5.7
22	2.7	1.9	e1.5	1.7	2.2	1.4	1.6	11	16	13	16	6.0
23	2.3	1.8	e1.5	1.6	1.8	1.5	1.7	11	15	13	16	5.0
24	2.2	1.7	e1.4	e1.7	1.7	1.5	1.6	14	14	14	15	5.8
25	2.2	1.8	e1.3	e1.8	1.7	1.4	1.6	16	14	15	15	9.6
26	2.3	1.9	e1.5	e1.6	1.8	1.4	1.6	13	14	16	16	9.8
27	1.9	1.8	e1.5	e1.5	1.8	1.3	1.5	12	36	14	15	10
28	1.8	1.8	e1.5	e1.4	2.0	1.3	2.1	14	17	16	13	10
29	1.7	1.8	e1.4	1.7	1.7	1.9	3.4	14	9.2	15	13	7.8
30	1.7	2.2	e1.5	1.6	--	2.5	3.5	14	8.7	15	12	6.2
31	1.7	--	e1.7	1.8	--	1.7	--	14	--	15	14	--
TOTAL	155.6	54.7	54.6	50.3	69.7	49.2	49.7	336.9	427.9	417.7	434	327.5
MEAN	5.02	1.82	1.76	1.62	2.40	1.59	1.66	10.9	14.3	13.5	14.0	10.9
MAX	14	2.5	2.1	1.8	8.7	2.5	3.5	16	36	26	16	19
MIN	1.7	1.7	1.3	1.4	1.7	1.3	1.1	3.4	8.7	8.9	12	5.0
AC-FT	309	108	108	100	138	98	99	668	849	829	861	650

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1996, BY WATER YEAR (WY)

MEAN	8.82	3.91	3.42	2.59	3.48	4.44	3.63	10.2	14.3	15.3	16.0	12.8
MAX	17.5	5.94	6.00	3.47	7.99	10.3	5.60	13.1	18.1	18.0	21.5	17.6
(WY)	1994	1994	1985	1985	1983	1983	1994	1982	1982	1985	1986	1983
MIN	5.02	1.82	1.76	1.62	2.40	1.59	1.66	10.9	14.3	13.5	14.0	10.9
(WY)	1996	1996	1996	1982	1995	1996	1996	1986	1994	1994	1995	1995

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1982 - 1996
ANNUAL TOTAL	2380.3	2427.8	
ANNUAL MEAN	6.52	6.63	8.32
HIGHEST ANNUAL MEAN			9.47
LOWEST ANNUAL MEAN			6.63
HIGHEST DAILY MEAN	75	Mar 6	75 Mar 6 1995
LOWEST DAILY MEAN	e1.3	Dec 25	a1.1 Apr 6 1996
ANNUAL SEVEN-DAY MINIMUM	1.4	Dec 23	1.2 Apr 4 1996
INSTANTANEOUS PEAK FLOW		78	b598 Aug 24 1982
INSTANTANEOUS PEAK STAGE		3.30	8.53 Aug 24 1982
ANNUAL RUNOFF (AC-FT)	4720	4820	6030
10 PERCENT EXCEEDS	13	14	17
50 PERCENT EXCEEDS	3.1	2.3	6.2
90 PERCENT EXCEEDS	1.7	1.5	2.0

e-Estimated.

a-Also occurred Apr 9, 1996.

b-From rating curve extended above 26 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow.

**09371492 MUD CREEK AT HIGHWAY 32, NEAR CORTEZ, CO--Continued**

**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--August 1993 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: September 1993 to current year.

WATER TEMPERATURES: September 1993 to current year.

INSTRUMENTATION.--Water-quality monitor since September 1993.

REMARKS.--Daily water temperature data are good. Daily specific conductance data are fair.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 8,660 microsiemens, Nov. 30, 1995; minimum, 1,000 microsiemens, July 17, 1996.

WATER TEMPERATURE: Maximum, 25.6°C, July 6, 1996; minimum, -0.5°C, Dec. 2, 1995.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 8,660 microsiemens, Nov. 30; minimum recorded, 1,000 microsiemens, July 17.

WATER TEMPERATURE: Maximum, 25.6°C, July 6; minimum, -0.5°C, Dec. 2, 1995.

**WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996**

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CONDUC- TANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
DEC 04...	1505	1.8	4980	8.1	3.0	2500	430	350	480	4
JAN 09...	1115	1.4	5040	8.1	0.0	2600	470	340	460	4
19...	1435	1.7	5080	8.2	0.0	2600	430	370	480	4
MAR 07...	1415	1.7	5040	8.3	5.5	2600	410	380	510	4
APR 04...	1040	1.5	5060	8.2	6.5	2500	410	360	510	4
MAY 16...	1150	11	1800	8.2	16.5	870	200	90	91	1
JUN 05...	1355	14	1760	8.2	20.0	850	200	85	78	1
28...	1400	15	2020	8.1	19.5	980	210	110	120	2
JUL 19...	1430	16	1650	8.1	23.0	820	200	77	68	1
26...	1400	16	1690	8.2	21.0	840	210	77	68	1
AUG 01...	1330	14	1680	8.2	21.5	820	200	79	70	1
SEP 03...	1410	12	1760	8.2	19.5	870	200	89	87	1

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB DIS- SOLVED (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, DIS- SOLVED (TONS PER DAY)
DEC 04...	5.6	247	2800	70	0.3	11	4300	5.84	21.5
JAN 09...	6.0	396	2900	74	0.5	12	4500	6.12	16.9
19...	10	378	2900	78	0.5	11	4510	6.13	20.6
MAR 07...	6.6	345	3000	83	0.5	8.9	4610	6.26	21.8
APR 04...	6.8	346	3000	79	0.5	7.8	4580	6.23	17.9
MAY 16...	4.4	209	810	21	0.3	8.2	1350	1.84	39.0
JUN 05...	4.2	220	800	17	0.4	9.1	1330	1.80	48.7
28...	9.0	203	940	25	0.4	13	1550	2.11	60.6
JUL 19...	4.4	227	700	15	0.4	12	1210	1.65	53.1
26...	3.8	220	750	15	0.4	10	1270	1.72	55.7
AUG 01...	3.4	216	750	15	0.4	9.9	1260	1.71	48.2
SEP 03...	4.4	224	780	18	0.4	11	1320	1.80	43.6

## SAN JUAN RIVER BASIN

**09371492 MUD CREEK AT HIGHWAY 32, NEAR CORTEZ, CO--Continued**

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER												
1	1870	1800	1830	4550	4460	4520	5280	4440	4730	4770	4720	4750
2	1910	1820	1840	4610	4460	4520	4940	4610	4730	4900	4770	4840
3	2040	1740	1850	4480	4340	4440	5010	4640	4730	4860	4810	4840
4	1770	1720	1750	4470	4400	4440	4870	4710	4800	4830	4730	4800
5	1770	1740	1760	4440	4310	4380	4980	4750	4870	4840	4730	4790
6	1840	1760	1800	4420	4380	4410	4980	4860	4910	4870	4710	4810
7	1800	1750	1770	4420	4360	4390	4940	4840	4900	4860	4750	4800
8	1790	1730	1760	4410	4340	4370	5070	4910	5000	4940	4750	4880
9	1770	1720	1740	4470	4370	4400	5090	4830	4970	4980	4770	4920
10	1840	1720	1780	5110	4470	4680	5010	4820	4910	4830	4650	4770
11	2160	1680	1830	4520	4200	4320	5020	4800	4920	4800	4660	4730
12	3010	2160	2630	4420	4210	4330	4900	4800	4860	4840	4640	4730
13	3720	3010	3390	4330	4110	4230	4950	4830	4910	4900	4650	4800
14	4030	3660	3870	4480	4210	4350	5130	4880	4940	4920	4680	4810
15	3800	3620	3710	4380	4190	4290	5120	4850	5000	4930	4680	4820
16	3960	3680	3830	4440	4380	4410	4980	4900	4950	4880	4640	4790
17	4000	3870	3950	4440	4390	4420	4970	4910	4940	6540	4430	5270
18	4150	3910	4060	4440	4370	4410	5060	4930	4990	5540	4930	5080
19	4310	3990	4040	4470	4400	4430	5080	4900	4980	5090	4950	5030
20	4410	4060	4250	4450	4390	4420	5040	4860	4940	5050	4840	4930
21	4060	3770	3890	4810	4360	4510	5130	4890	5010	5110	4840	4980
22	4000	3560	3690	4570	4470	4520	5150	4870	4980	4930	4830	4880
23	3810	3710	3750	4560	4490	4520	5360	4970	5170	4930	4800	4850
24	3850	3800	3820	4550	4380	4490	5310	5210	5260	5030	4770	4910
25	3930	3840	3890	4650	4440	4510	5290	5180	5240	5020	4720	4900
MONTH	4590	1680	3170	---	---	---	5360	4440	4980	6540	4430	4860
FEBRUARY												
	MARCH			APRIL			MAY					
1	5980	4550	5210	5120	4860	5000	5160	5010	5060	2810	2460	2630
2	5640	4690	4980	5120	4860	4970	5330	4970	5030	2470	1880	2160
3	5540	4830	5080	5030	4810	4920	5080	4960	4990	1990	1880	1930
4	5330	4830	5120	4920	4880	4900	5320	4970	5080	2100	1980	2040
5	4900	4620	4780	5120	4850	4920	5430	5040	5090	2180	2060	2120
6	5880	4350	4970	5450	4960	5160	5310	5140	5220	5170	4710	4930
7	5100	3960	4420	5420	4980	5120	5730	4720	4890	2030	1980	2010
8	4960	4410	4670	5100	4950	5020	6530	4940	5120	2000	1880	1970
9	5110	4770	4890	5050	4970	5020	5270	4920	4970	1950	1880	1920
10	5150	4860	4960	5080	5000	5040	5050	4800	4940	1950	1860	1910
11	5050	4840	4940	5190	5060	5100	5170	4750	4900	1930	1800	1870
12	5100	4940	5000	5220	5160	5190	4940	4480	4670	1970	1770	1870
13	5150	4930	5030	5270	5120	5190	5230	4370	4590	1980	1880	1930
14	5190	4930	5030	5270	5110	5190	4470	4170	4210	1980	1900	1920
15	5130	4920	5000	5200	5130	5170	4320	4170	4250	1900	1790	1860
16	5150	4850	4980	5170	5130	5150	4600	4240	4420	1820	1660	1770
17	5120	4900	4980	5270	5160	5200	4750	4260	4420	1720	1540	1630
18	5120	5000	5020	5210	5070	5150	4310	4110	4170	1680	1540	1610
19	5050	4930	4980	5170	5050	5130	4690	4050	4330	1660	1560	1610
20	5170	4960	5020	5150	5030	5110	4320	4120	4210	1870	1540	1650
21	5340	5140	5210	5170	5010	5100	4310	4210	4250	1630	1420	1510
22	5190	5060	5150	5290	5090	5120	4230	3910	4070	1540	1460	1500
23	5110	4900	5000	5380	5140	5190	4000	3860	3920	1800	1490	1660
24	5100	4880	5030	5170	5110	5130	4320	3860	3920	1710	1570	1620
25	5140	4870	4990	5190	5090	5140	4320	3950	4080	2240	1560	1700
26	5010	4780	4950	5180	5110	5140	4270	3850	3950	1880	1610	1680
27	5090	4890	4980	5210	5040	5130	4150	3860	3990	1710	1630	1670
28	5360	5000	5140	5490	5100	5200	4770	3190	3730	1680	1550	1630
29	5190	4870	5000	6020	5090	5390	3260	2490	2940	1650	1570	1610
30	---	---	---	6190	5130	5520	2830	2490	2730	1640	1580	1610
31	---	---	---	5470	5050	5150	---	---	---	1670	1620	1650
MONTH	5980	3960	4980	6190	4810	5120	6530	2490	4400	2810	1420	1820

## SAN JUAN RIVER BASIN

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## 09371492 MUD CREEK AT HIGHWAY 32, NEAR CORTEZ, CO--Continued

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	1680	1650	1660	1750	1640	1700	1800	1610	1690	1890	1690	1810
2	1740	1650	1680	1810	1650	1710	1780	1600	1680	1750	1670	1700
3	1770	1710	1730	1740	1640	1680	1620	1500	1540	1810	1710	1750
4	1790	1730	1760	1720	1640	1680	1680	1530	1610	1840	1730	1780
5	1800	1650	1750	1780	1590	1670	1800	1630	1700	1910	1790	1860
6	1940	1540	1670	1710	1460	1600	1790	1610	1690	2050	1860	1970
7	1690	1530	1610	1520	1400	1470	1730	1600	1650	1970	1840	1920
8	1680	1540	1620	1420	1310	1390	1700	1630	1660	2050	1920	2010
9	1760	1490	1640	1350	1290	1330	1700	1560	1650	2060	1930	2010
10	1510	1410	1440	1350	1290	1320	1720	1590	1680	2130	1990	2070
11	1510	1410	1470	1320	1300	1310	1700	1620	1660	2260	2060	2170
12	1500	1430	1480	1340	1300	1320	1740	1600	1670	2370	2190	2290
13	1520	1470	1490	1400	1320	1360	1790	1590	1670	2240	1910	2100
14	1610	1400	1490	1630	1270	1410	1690	1590	1660	2710	1890	2260
15	1440	1360	1390	1300	1270	1280	1660	1540	1580	2670	2150	2290
16	1430	1350	1390	1330	1280	1310	1690	1580	1640	2360	2130	2250
17	1440	1330	1390	1550	1000	1370	1660	1510	1570	2400	2160	2270
18	1510	1330	1420	1480	1400	1440	1540	1470	1500	3180	1980	2300
19	1510	1400	1460	1660	1480	1580	1580	1520	1550	3400	2340	2430
20	1490	1410	1450	1660	1590	1620	1600	1530	1570	2470	2360	2410
21	1600	1490	1530	1910	1630	1800	1610	1560	1580	2630	2470	2570
22	1550	1440	1500	1900	1780	1850	1610	1500	1550	2600	2420	2530
23	1440	1240	1380	1940	1740	1820	1650	1480	1570	2780	2470	2590
24	1240	1200	1220	1860	1720	1760	1760	1470	1600	2690	2330	2530
25	1240	1180	1210	1770	1710	1740	1590	1540	1570	2330	2230	2270
26	1230	1200	1220	1720	1620	1680	1820	1480	1570	2310	2230	2280
27	3630	1090	1850	1910	1610	1720	1580	1440	1520	2290	2210	2250
28	2730	1840	2170	1750	1600	1680	1640	1550	1580	2260	2150	2210
29	1870	1720	1820	1740	1670	1700	1690	1590	1630	2370	2210	2270
30	1840	1710	1780	1800	1640	1760	1810	1690	1760	2410	2030	2270
31	---	---	---	1790	1630	1700	1870	1760	1810	---	---	---
MONTH	3630	1090	1560	1940	1000	1570	1870	1440	1620	3400	1670	2180

TEMPERATURE, WATER (DEG.C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	13.9	9.7	11.7	8.9	7.4	8.2	1.8	-.3	.6	-.2	-.3	-.2
2	13.7	9.4	11.4	8.0	4.6	6.7	1.7	-.5	.5	-.2	-.3	-.2
3	13.5	8.7	10.9	4.6	1.1	3.0	1.6	-.3	.6	-.2	-.3	-.3
4	12.2	9.3	10.6	4.3	1.1	2.7	2.9	.6	1.7	-.2	-.3	-.2
5	11.2	6.8	8.8	4.4	.2	2.5	2.5	-.2	1.3	-.1	-.3	-.2
6	10.8	5.4	8.0	4.6	2.4	3.4	2.8	.1	1.4	-.1	-.3	-.2
7	11.8	6.2	8.7	4.9	1.3	3.2	2.3	.6	1.5	.0	-.3	-.1
8	11.9	6.4	8.9	4.8	1.2	3.2	2.5	.8	1.6	-.1	-.3	-.2
9	12.2	6.0	8.8	5.8	1.4	3.7	1.2	-.3	.3	-.2	-.3	-.2
10	12.2	6.2	8.9	5.9	3.6	5.2	1.0	-.3	.1	-.1	-.3	-.1
11	12.2	7.1	9.6	3.9	1.1	2.7	.8	-.3	.1	.3	-.1	.1
12	11.3	7.0	9.3	4.2	.9	2.7	2.9	.4	1.7	.3	-.2	.0
13	10.7	7.3	9.1	5.2	1.6	3.6	4.4	2.6	3.5	.1	-.2	-.1
14	9.1	4.3	7.1	5.7	2.5	4.3	4.3	2.7	3.6	-.1	-.2	-.1
15	9.3	4.8	7.4	5.3	2.0	3.8	2.7	-.3	1.0	-.1	-.2	-.1
16	9.7	5.0	7.5	5.0	1.9	3.7	2.6	.2	1.3	-.1	-.2	-.1
17	9.7	5.2	7.7	4.8	1.7	3.4	2.4	.6	1.5	-.1	-.2	-.2
18	9.6	5.0	7.6	4.0	.7	2.5	2.4	.7	1.6	-.1	-.2	-.1
19	9.4	5.2	7.4	3.9	.8	2.5	.7	-.3	-.1	.3	-.2	.0
20	7.3	3.0	5.7	3.8	.4	2.2	.4	-.3	-.1	.2	-.2	.0
21	8.2	3.0	5.8	3.3	.1	1.9	-.2	-.3	-.2	.0	-.2	-.1
22	8.0	5.5	6.8	3.8	.7	2.3	-.1	-.3	-.3	.5	-.2	.1
23	6.1	2.9	4.7	3.9	.9	2.4	-.2	-.3	-.3	.5	-.2	.1
24	6.7	2.9	4.8	2.7	-.2	1.5	-.2	-.3	-.3	.1	-.2	-.1
25	5.8	1.8	4.2	2.6	-.3	1.2	-.2	-.3	-.3	-.1	-.2	-.1
26	6.7	2.3	4.6	4.5	1.7	3.1	-.2	-.3	-.3	.0	-.2	-.2
27	7.2	3.1	5.4	3.2	-.2	1.2	-.2	-.3	-.3	-.1	-.2	-.2
28	6.9	3.2	5.4	.5	-.3	-.1	-.2	-.3	-.3	-.1	-.2	-.1
29	8.0	4.8	6.5	1.8	-.3	.6	-.2	-.3	-.3	.4	-.2	.0
30	8.3	4.9	6.6	2.3	-.3	.8	-.2	-.3	-.3	.7	.1	.4
31	7.9	3.9	6.2	---	---	---	-.2	-.3	-.2	.7	-.1	.3
MONTH	13.9	1.8	7.6	8.9	-.3	2.9	4.4	-.5	.7	.7	-.3	-.1

## SAN JUAN RIVER BASIN

**09371492 MUD CREEK AT HIGHWAY 32, NEAR CORTEZ, CO--Continued**

TEMPERATURE, WATER (DEG.C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

**09371520 McELMO CREEK ABOVE TRAIL CANYON, NEAR CORTEZ, CO**

LOCATION.--Lat 37°19'36", long 108°42'00", in NE<sup>1/4</sup>NE<sup>1/4</sup> sec.3, T.35 N., R.17 W., Montezuma County, Hydrologic Unit 14080202, on left bank adjacent to abandoned gravel pit 1.5 mi downstream from Mud Creek, 1.9 mi upstream from Trail Canyon and 5.5 mi south of Cortez.

DRAINAGE AREA.--234 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--August 1993 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 5,690 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. A few small diversions upstream from station. Most of flow comes from diversions through the Dolores Project and Montezuma Valley Irrigation Company (water imported from Dolores River Basin).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 9, 1927 at location 1.5 mi upstream was determined to be 5,560 ft<sup>3</sup>/s, gage height, 5.72 ft, site and datum then in use. Feb. 20, 1993, 890 ft<sup>3</sup>/s, gage height, 7.57 ft, present datum, on basis of slope-area measurement at site 1 mi upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	121	66	30	e26	e26	20	17	43	63	142	71	100
2	114	69	29	e24	e33	20	16	37	54	105	73	102
3	102	61	28	e23	e29	20	15	37	57	90	86	92
4	91	60	29	e24	e25	21	14	39	59	84	95	82
5	86	60	30	e26	e23	22	14	39	58	76	87	78
6	85	59	30	e25	e30	26	14	38	60	76	84	101
7	84	51	31	e24	e35	24	13	39	53	72	79	109
8	73	49	36	e24	e37	22	13	41	47	77	75	90
9	73	49	31	e24	e36	20	11	45	50	86	72	90
10	71	60	30	e24	e35	19	15	41	55	81	79	82
11	70	56	31	e24	34	18	14	40	60	67	79	81
12	72	51	33	e25	30	23	13	43	57	63	72	80
13	77	50	32	e24	29	25	17	43	59	72	71	112
14	76	51	32	e23	27	29	28	37	69	105	72	153
15	77	49	30	e23	23	29	26	40	84	83	78	246
16	82	46	30	e23	22	22	22	41	77	81	73	99
17	78	44	31	e24	22	18	20	42	80	181	85	83
18	75	42	30	e24	22	16	26	46	73	162	91	73
19	71	42	28	e23	22	16	29	48	67	123	88	82
20	69	41	e24	e23	23	16	26	50	67	104	84	66
21	74	41	e23	e23	32	16	28	51	94	83	86	54
22	77	40	e23	e23	28	16	29	48	123	70	103	50
23	79	39	e23	e23	24	15	28	43	96	59	111	47
24	82	33	e21	e23	21	16	26	54	86	66	146	44
25	83	33	e20	e23	21	18	30	78	82	72	134	38
26	80	33	e23	e20	21	19	32	89	81	75	144	35
27	76	31	e23	e19	20	17	31	92	270	71	141	34
28	73	29	e22	e19	22	16	32	85	275	84	124	34
29	72	32	e22	e24	22	16	36	72	158	90	121	36
30	71	30	e24	e23	---	22	44	66	117	84	109	39
31	68	---	e25	e24	---	19	---	66	---	75	106	---
TOTAL	2482	1397	854	724	774	616	679	1573	2631	2759	2919	2412
MEAN	80.1	46.6	27.5	23.4	26.7	19.9	22.6	50.7	87.7	89.0	94.2	80.4
MAX	121	69	36	26	37	29	44	92	275	181	146	246
MIN	68	29	20	19	20	15	11	37	47	59	71	34
MED	77	47	29	24	25	19	24	43	68	81	86	81
AC-FT	4920	2770	1690	1440	1540	1220	1350	3120	5220	5470	5790	4780

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1996, BY WATER YEAR (WY)

MEAN	91.1	53.0	35.4	31.7	41.9	53.0	31.3	57.6	80.8	91.0	106	102
MAX	125	60.9	42.0	40.0	62.5	87.4	35.8	62.9	95.8	102	125	114
(WY)	1994	1994	1995	1995	1994	1995	1995	1995	1995	1995	1995	1995
MIN	68.1	46.6	27.5	23.4	26.7	19.9	22.6	50.7	59.0	82.4	94.2	80.4
(WY)	1995	1996	1996	1996	1996	1996	1996	1996	1994	1994	1996	1996

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1993 - 1996
ANNUAL TOTAL	26040	19820	
ANNUAL MEAN	71.3	54.2	64.5
HIGHEST ANNUAL MEAN			71.9
LOWEST ANNUAL MEAN			54.2
HIGHEST DAILY MEAN	757	Mar 6	757 Mar 6 1995
LOWEST DAILY MEAN	e20	Dec 25	11 Apr 9 1996
ANNUAL SEVEN-DAY MINIMUM	e22	Dec 23	13 Apr 6 1996
INSTANTANEOUS PEAK FLOW		485 Jun 27	1080 Mar 6 1995
INSTANTANEOUS PEAK STAGE		5.49 Jun 27	8.42 Mar 6 1995
ANNUAL RUNOFF (AC-FT)	51650	39310	46730
10 PERCENT EXCEEDS	119	93	115
50 PERCENT EXCEEDS	61	42	56
90 PERCENT EXCEEDS	30	20	25

e-Estimated.

**09371520 MCELMO CREEK ABOVE TRAIL CANYON, NEAR CORTEZ, CO--Continued**  
**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--October 1990 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1990 to current year.

WATER TEMPERATURES: October 1990 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1990.

REMARKS.--Daily water temperature data are good. Daily specific conductance data are fair except July 10-26 which are poor.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 3,750 microsiemens, Feb. 13, 1994; minimum, 1,030 microsiemens, May 25, 1992.

WATER TEMPERATURE: Maximum, 26.3°C, July 5-6, 1996; minimum, -0.4°C during winter months most years.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 3,390 microsiemens, Mar. 12, Apr. 2 ; minimum, 1,060 microsiemens, July 17.

WATER TEMPERATURE: Maximum, 26.3°C, July 5-6; minimum, -0.3°C on many days Dec. to Jan.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH ARD (STAND- UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L CACO3)	CALCIUM SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
DEC 04...	1330	29	2710	8.2	4.0	1500	320	160	140	2
JAN 09...	1330	28	2940	8.2	0.0	1700	380	180	170	2
19...	1325	23	3150	8.3	0.0	1700	350	210	190	2
MAR 11...	1130	19	3120	8.3	7.5	1700	330	210	210	2
APR 03...	1410	15	3210	8.4	15.5	1600	300	210	230	2
MAY 15...	1450	43	1650	8.4	21.5	790	180	83	80	1
JUN 06...	1235	58	1430	8.3	19.5	690	160	70	60	1
28...	0910	276	1640	8.1	16.5	800	190	78	70	1
JUL 18...	1330	154	1310	8.2	22.5	640	160	59	47	0.8
26...	1230	77	1410	8.2	21.0	690	170	64	50	0.8
AUG 01...	1200	73	1380	8.3	21.0	680	170	62	48	0.8
SEP 03...	1240	95	1360	8.3	19.0	660	160	64	48	0.8

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB DIS- SOLVED (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF TIENTS, (MG/L AS SIO2)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
DEC 04...	3.8	281	1400	28	0.2	9.8	2230	3.03	173
JAN 09...	4.4	312	1600	34	0.4	11	2570	3.49	193
19...	9.9	321	1700	41	0.4	11	2700	3.68	168
MAR 11...	4.7	231	1700	39	0.4	4.1	2640	3.59	133
APR 03...	5.3	204	1800	41	0.4	3.5	2710	3.69	109
MAY 15...	5.3	222	700	20	0.4	9.9	1210	1.65	141
JUN 06...	4.9	223	580	14	0.4	9.9	1030	1.40	162
28...	7.7	187	730	17	0.4	12	1220	1.66	907
JUL 18...	4.5	208	530	12	0.4	13	951	1.29	395
26...	3.5	214	590	13	0.4	12	1030	1.40	214
AUG 01...	3.8	218	570	13	0.4	12	1010	1.37	199
SEP 03...	3.9	225	550	13	0.4	12	986	1.34	253

## SAN JUAN RIVER BASIN

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## 09371520 MCELMO CREEK ABOVE TRAIL CANYON NEAR CORTEZ, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM @ 25 DEG.C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	1660	1610	1630	1890	1870	1890	2630	2550	2590	2810	2670	2750
2	1650	1580	1600	1870	1770	1830	2610	2540	2570	2960	2770	2890
3	1740	1650	1710	1780	1730	1750	2630	2570	2600	2980	2890	2930
4	1780	1740	1750	1730	1710	1720	2630	2600	2620	2890	2680	2790
5	1780	1740	1750	1720	1680	1690	2750	2610	2670	2780	2670	2730
6	1790	1700	1760	1680	1660	1670	2730	2670	2700	2910	2720	2840
7	1850	1740	1790	1700	1660	1680	2710	2630	2680	2930	2810	2890
8	1920	1850	1900	1750	1700	1730	2680	2590	2620	2920	2820	2880
9	1950	1890	1910	1730	1710	1720	2800	2650	2700	2940	2790	2890
10	1950	1890	1920	1760	1660	1710	2770	2640	2690	2890	2740	2810
11	1930	1910	1920	1830	1760	1800	2720	2590	2650	2820	2660	2780
12	1940	1910	1930	1800	1760	1790	2700	2580	2630	2880	2650	2790
13	1940	1910	1920	1830	1790	1810	2660	2580	2620	2920	2670	2830
14	1930	1860	1890	1840	1800	1820	2610	2490	2560	2930	2640	2840
15	1920	1850	1890	1860	1810	1830	2650	2500	2560	2970	2680	2860
16	1900	1850	1880	1880	1840	1860	2620	2530	2570	2950	2630	2870
17	1920	1880	1900	1920	1880	1910	2610	2530	2570	2950	2570	2730
18	1970	1910	1950	1960	1920	1940	2600	2510	2560	3270	2760	3000
19	1960	1930	1940	2010	1950	1980	2740	2410	2530	3170	2990	3110
20	2040	1930	2000	2020	2000	2010	2660	2400	2500	3080	2830	3020
21	1990	1940	1980	2050	2000	2030	2690	2410	2530	3110	2790	2980
22	2010	1920	1960	2100	2030	2070	2620	2440	2560	3020	2840	2920
23	1920	1830	1880	2170	2090	2140	2730	2500	2640	3010	2760	2900
24	1880	1840	1860	2270	2150	2220	2750	2530	2640	3010	2770	2910
25	1850	1820	1840	2330	2260	2300	2620	2530	2580	3060	2760	2920
26	1870	1820	1840	2400	2330	2370	2590	2520	2560	3120	2860	3000
27	1880	1840	1870	2430	2390	2420	2630	2520	2580	3190	2970	3100
28	1860	1830	1850	2500	2410	2440	2680	2560	2610	3100	2830	2970
29	1900	1840	1870	2540	2450	2490	2660	2580	2620	2880	2700	2840
30	1860	1830	1840	2590	2480	2520	2690	2620	2650	2800	2720	2780
31	1880	1810	1850	---	---	---	2690	2660	2670	2810	2740	2770
MONTH	2040	1580	1860	2590	1660	1970	2800	2400	2610	3270	2570	2880
	FEBRUARY			MARCH			APRIL			MAY		
1	2810	2660	2740	3190	2810	2940	3280	3210	3250	1710	1580	1650
2	2850	2620	2740	3170	2840	2930	3390	2970	3170	1640	1560	1600
3	3140	2850	2970	3090	2850	2930	3230	3130	3190	1660	1600	1630
4	3140	2900	3010	2970	2860	2910	3220	3110	3160	1620	1540	1580
5	3080	2700	2920	2930	2830	2900	3210	3080	3130	1560	1520	1540
6	2830	2590	2720	2970	2790	2900	3290	3050	3150	1560	1500	1540
7	2730	2530	2630	3100	2940	3010	3250	3160	3200	1510	1470	1490
8	2770	2610	2710	3130	3000	3060	3330	3170	3220	1540	1450	1500
9	2750	2660	2710	3160	3050	3100	3250	3180	3210	1460	1370	1410
10	2780	2680	2750	3150	3060	3110	3220	3120	3170	1460	1360	1410
11	2810	2750	2780	3190	3080	3140	3190	3070	3120	1560	1390	1470
12	2830	2770	2790	3390	2880	3110	3150	3040	3100	1590	1400	1490
13	2980	2800	2930	3220	2970	3100	3210	2970	3060	1550	1400	1490
14	3010	2910	2970	3040	2680	2900	3220	2320	2590	1630	1540	1590
15	3210	3000	3080	2770	2560	2670	2520	2280	2410	1660	1560	1610
16	3140	3010	3070	3090	2560	2930	2550	2280	2440	1630	1520	1580
17	3090	2980	3050	3260	3090	3180	2630	2520	2580	1620	1480	1550
18	3100	3010	3050	3260	3010	3140	2520	2030	2300	1570	1480	1530
19	3120	3030	3070	3350	2700	3130	2170	2030	2120	1550	1460	1490
20	3150	2970	3090	3320	3100	3210	2250	2100	2190	1530	1460	1490
21	3070	2910	2980	3250	3020	3180	2210	2100	2170	1520	1310	1440
22	3110	2960	3060	3250	2950	3170	2140	2040	2110	1360	1270	1310
23	3110	3000	3050	3170	2950	3110	2150	2040	2120	1350	1290	1330
24	3110	3010	3030	3170	3090	3130	2100	2040	2080	1360	1250	1310
25	3100	2980	3030	3120	3010	3070	2040	1940	1980	1380	1260	1290
26	3050	2920	3010	3210	2810	3030	1980	1890	1930	1360	1180	1240
27	3280	2820	2980	3180	2660	2890	1920	1850	1880	1290	1220	1250
28	3220	2830	2940	3180	2980	3100	1860	1760	1820	1240	1200	1230
29	3070	2840	2940	3100	2990	3050	1890	1750	1790	1420	1230	1310
30	---	---	---	3260	3020	3150	1840	1710	1770	1480	1370	1440
31	---	---	---	3240	3010	3120	---	---	---	1410	1340	1370
MONTH	3280	2530	2920	3390	2560	3040	3390	1710	2580	1710	1180	1460

## SAN JUAN RIVER BASIN

**09371520 MCELMO CREEK ABOVE TRAIL CANYON NEAR CORTEZ, CO--Continued**

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM @ 25 DEG.C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	1390	1350	1370	2110	1370	1560	1410	1340	1370	1440	1430	1440
2	1370	1340	1350	1520	1420	1460	1440	1350	1380	1430	1380	1410
3	1440	1350	1400	1490	1420	1460	1390	1270	1330	1410	1360	1390
4	1510	1400	1460	1460	1390	1410	1300	1240	1270	1430	1390	1410
5	1570	1480	1540	1530	1440	1470	1300	1230	1280	1510	1400	1460
6	1580	1430	1490	1460	1370	1410	1320	1280	1290	1510	1430	1480
7	1510	1480	1490	1440	1380	1410	1350	1300	1320	1580	1430	1480
8	1580	1470	1520	1450	1340	1400	1360	1320	1340	1470	1350	1380
9	1560	1460	1510	1440	1390	1410	1370	1350	1360	1470	1390	1430
10	1510	1410	1450	1440	1390	1420	1400	1350	1370	1490	1450	1470
11	1520	1350	1410	1440	1400	1420	1400	1330	1360	1570	1480	1510
12	1430	1350	1400	1420	1400	1410	1390	1350	1370	1640	1530	1580
13	1410	1310	1370	1430	1290	1410	1390	1350	1370	1700	1430	1580
14	1370	1320	1340	1450	1350	1420	1380	1310	1330	1760	1400	1610
15	1390	1330	1350	1410	1390	1400	1380	1310	1340	1720	1590	1670
16	1350	1270	1300	1420	1340	1380	1390	1340	1360	1850	1700	1770
17	1350	1280	1310	1390	1060	1260	1380	1270	1320	1850	1800	1830
18	1370	1300	1330	1550	1290	1350	1280	1230	1250	1930	1840	1870
19	1390	1310	1350	1340	1310	1330	1310	1260	1280	2090	1910	1960
20	1370	1260	1310	1390	1340	1350	1350	1280	1300	2000	1920	1950
21	1350	1280	1320	1420	1360	1390	1340	1310	1320	2040	1990	2010
22	1340	1290	1310	1450	1380	1410	1330	1240	1280	2070	2030	2050
23	1300	1190	1230	1460	1430	1450	1300	1100	1230	2090	2040	2060
24	1270	1220	1230	1550	1420	1480	1650	1130	1380	2090	1940	2010
25	1330	1230	1270	1540	1440	1490	1510	1460	1480	1990	1900	1950
26	1340	1270	1300	1470	1420	1450	1510	1370	1450	1970	1910	1940
27	1680	1290	1480	1480	1390	1440	1520	1460	1490	2000	1940	1970
28	1680	1530	1590	1520	1370	1430	1480	1460	1470	1990	1940	1970
29	1580	1450	1490	1570	1500	1530	1480	1410	1440	1970	1920	1940
30	1490	1440	1470	1540	1390	1470	1420	1400	1410	1940	1800	1890
31	---	---	---	1460	1350	1390	1440	1390	1400	---	---	---
MONTH	1680	1190	1390	2110	1060	1420	1650	1100	1350	2090	1350	1720
YEAR	3390	1060	2100									

TEMPERATURE, WATER (DEG.C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	14.0	10.1	12.1	10.0	8.4	9.2	3.6	.2	2.0	-.2	-.3	-.2
2	13.7	9.9	11.8	9.4	6.0	8.0	3.4	-.1	1.8	-.2	-.3	-.2
3	13.5	9.2	11.4	6.3	3.2	4.8	3.3	-.1	1.9	-.2	-.3	-.2
4	12.3	9.6	10.8	6.0	2.8	4.3	4.3	1.5	2.9	-.2	-.3	-.2
5	11.1	7.2	9.1	6.4	2.6	4.5	4.2	.9	2.6	-.2	-.3	-.2
6	10.7	6.1	8.5	6.3	4.1	5.0	4.4	.9	2.7	-.2	-.3	-.2
7	11.9	6.9	9.3	6.8	3.1	5.0	3.1	1.7	2.4	-.2	-.3	-.2
8	11.9	7.3	9.6	6.8	3.0	5.0	3.7	1.3	2.4	-.2	-.3	-.2
9	11.8	7.1	9.4	6.8	3.2	5.2	2.2	-.3	1.0	-.2	-.3	-.2
10	12.2	7.5	9.8	6.4	3.9	5.8	2.4	-.3	.8	.0	-.3	-.2
11	12.7	7.9	10.3	5.2	2.2	3.7	2.1	-.3	.8	.0	-.2	-.1
12	12.6	9.0	10.7	5.8	2.1	4.0	4.2	1.5	2.8	-.1	-.2	-.1
13	12.2	8.9	10.4	6.8	2.9	4.9	5.7	3.7	4.6	.0	-.2	-.1
14	10.7	6.6	8.7	7.3	3.7	5.6	5.5	3.0	4.3	-.1	-.2	-.1
15	11.1	6.8	9.0	7.0	3.6	5.4	3.0	.0	1.6	-.1	-.2	-.1
16	11.2	7.3	9.2	6.8	3.6	5.3	2.4	-.1	1.2	-.1	-.2	-.1
17	11.7	7.5	9.5	6.6	3.2	5.0	3.3	1.0	2.0	-.1	-.2	-.1
18	11.6	7.4	9.5	6.0	2.5	4.3	2.3	.6	1.6	-.1	-.2	-.2
19	11.3	7.6	9.4	5.8	2.4	4.2	1.4	-.3	.1	-.1	-.2	-.2
20	9.4	5.5	7.6	5.7	2.2	4.0	.0	-.3	-.2	-.1	-.2	-.2
21	9.7	5.4	7.6	5.3	1.9	3.7	-.1	-.3	-.2	-.1	-.2	-.2
22	8.7	6.2	7.7	5.4	2.3	3.9	-.1	-.3	-.2	-.1	-.2	-.2
23	7.1	3.8	5.6	5.7	2.4	4.0	-.2	-.3	-.2	-.1	-.2	-.2
24	8.1	4.3	6.1	4.5	1.2	3.0	-.2	-.3	-.3	-.1	-.2	-.2
25	7.7	4.1	6.0	4.5	1.0	2.8	-.2	-.3	-.3	-.1	-.2	-.2
26	8.3	4.5	6.4	5.6	2.9	4.1	-.2	-.3	-.3	-.1	-.2	-.2
27	9.1	5.3	7.2	3.7	.5	2.0	-.2	-.3	-.3	-.1	-.2	-.2
28	8.3	5.3	7.0	1.2	-.3	.3	-.2	-.3	-.2	-.1	-.2	-.2
29	9.6	6.5	8.0	2.9	-.3	1.1	-.2	-.3	-.2	-.1	-.2	-.1
30	10.3	6.8	8.5	3.7	.0	2.0	-.2	-.3	-.2	-.1	-.2	-.1
31	9.6	6.3	8.1	---	---	---	-.2	-.3	-.2	-.1	-.2	-.1
MONTH	14.0	3.8	8.8	10.0	-.3	4.3	5.7	-.3	1.2	.0	-.3	-.2

**09371520 MCELMO CREEK ABOVE TRAIL CANYON NEAR CORTEZ, CO--Continued**

TEMPERATURE, WATER (DEG.C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## SAN JUAN RIVER BASIN

**09372000 McELMO CREEK NEAR COLORADO-UTAH STATE LINE**

LOCATION.--Lat 37°19'27", long 109°00'54", in NE<sup>1/4</sup> sec.2, T.35 N., R.20 W., Montezuma County, Hydrologic Unit 14080202, on right bank 1.5 mi upstream from Colorado-Utah State line, 2.0 mi upstream from Yellowjacket Creek, and 2.0 mi west of former town of McElmo.

DRAINAGE AREA.--346 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

PERIOD OF RECORD.--March 1951 to current year. Water-quality data available, November 1977 to September 1981, and August 1987 to current year.

REVISED RECORDS.--WSP 1925: 1951-52 (M), 1957 (M). WRD CO-1972: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,890 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are fair. Diversions for irrigation of about 1,780 acres upstream from station. One diversion upstream from station for irrigation of about 60 acres downstream from station. Part of flow is return water from irrigated lands of Montezuma Irrigation District (water imported from Dolores River basin).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	129	71	46	32	29	24	22	24	41	130	47	75
2	122	76	45	e29	e29	24	21	25	39	118	50	73
3	111	71	45	e29	e29	23	20	21	35	78	57	70
4	98	65	43	e30	25	23	20	21	44	68	62	67
5	87	64	42	e30	31	24	18	20	42	57	59	60
6	84	65	42	e28	32	27	16	17	42	60	53	67
7	88	63	43	e27	39	29	15	17	35	56	56	91
8	78	59	45	e30	41	27	14	15	33	50	53	76
9	69	58	43	e29	39	25	15	13	31	56	52	69
10	67	60	41	29	37	24	11	15	35	61	55	66
11	64	71	41	30	34	23	3.7	17	41	54	60	70
12	66	63	43	29	33	24	4.7	19	42	49	51	67
13	68	62	43	28	31	30	3.6	20	50	45	43	92
14	75	61	43	28	30	32	4.1	23	48	78	43	151
15	75	60	42	28	29	33	11	19	59	74	47	241
16	77	59	40	27	29	32	16	19	59	65	47	141
17	75	57	41	e30	27	25	15	20	61	155	51	92
18	73	56	40	e27	27	23	12	27	60	186	56	90
19	72	55	36	e26	26	22	11	30	52	128	56	91
20	68	56	e32	e26	26	21	17	25	49	99	54	84
21	74	55	e30	e25	31	21	14	29	57	77	53	68
22	77	53	e30	e26	34	22	13	28	99	63	55	62
23	77	53	e30	e25	31	21	15	26	80	57	77	58
24	77	48	e26	e26	27	21	12	28	65	56	111	54
25	82	47	e28	e25	25	22	7.5	47	61	55	115	50
26	84	46	e30	e22	25	23	9.3	66	61	55	117	45
27	77	46	e29	e20	24	23	13	65	179	56	124	45
28	75	42	e28	e26	24	22	12	64	327	57	113	41
29	73	45	e29	e26	26	19	12	56	173	62	96	43
30	69	47	e30	27	--	23	16	51	121	60	87	43
31	68	---	32	27	--	25	--	47	--	55	82	---
TOTAL	2479	1734	1158	847	870	757	393.9	914	2121	2320	2082	2342
MEAN	80.0	57.8	37.4	27.3	30.0	24.4	13.1	29.5	70.7	74.8	67.2	78.1
MAX	129	76	46	32	41	33	22	66	327	186	124	241
MIN	64	42	26	20	24	19	3.6	13	31	45	43	41
AC-FT	4920	3440	2300	1680	1730	1500	781	1810	4210	4600	4130	4650

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1996, BY WATER YEAR (WY)

MEAN	56.6	49.8	39.4	33.3	49.4	60.2	41.3	47.6	55.2	52.0	62.6	57.7
MAX	161	122	95.4	68.4	192	197	148	108	105	132	160	226
(WY)	1973	1988	1966	1969	1993	1973	1973	1992	1969	1957	1967	1986
MIN	1.84	14.0	13.5	16.1	17.9	15.7	2.23	6.79	2.60	1.19	2.69	.43
(WY)	1957	1957	1978	1978	1964	1951	1977	1977	1977	1951	1972	1956

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1951 - 1996
ANNUAL TOTAL	26162	18017.9	
ANNUAL MEAN	71.7	49.2	50.9
HIGHEST ANNUAL MEAN			94.6
LOWEST ANNUAL MEAN			16.2
HIGHEST DAILY MEAN	1150	Mar 6	1973
LOWEST DAILY MEAN	15	May 2	1977
ANNUAL SEVEN-DAY MINIMUM	16	Apr 29	1956
INSTANTANEOUS PEAK FLOW			1956
INSTANTANEOUS PEAK STAGE		5.44	1967
ANNUAL RUNOFF (AC-FT)	51890	35740	36880
10 PERCENT EXCEEDS	110	82	95
50 PERCENT EXCEEDS	64	43	38
90 PERCENT EXCEEDS	32	20	12

e-Estimated.

a-Also occurred Sep 10, 1977.

b-From rating curve extended above 2100 ft<sup>3</sup>/s.

c-From floodmark in gage well.

d-Maximum gage height, 8.13 ft, Sep 6, 1970.

## SAN JUAN RIVER BASIN

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## 09372000 MCELMO CREEK NEAR COLORADO-UTAH STATE LINE, CO--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1977 to September 1981, August 1987 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
DEC 04...	1110	41	2750	8.1	4.0	1500	310	170	160	2
JAN 10...	1045	24	2880	8.1	1.0	1500	330	170	170	2
19...	1120	28	2870	8.2	0.0	1600	310	190	180	2
MAR 07...	1130	31	2950	8.2	5.5	1500	290	190	190	2
APR 03...	1105	20	3170	8.2	13.0	1600	300	200	220	2
MAY 15...	1225	19	2190	8.4	21.0	1000	220	120	130	2
JUN 05...	1000	47	1830	8.0	17.5	860	190	94	94	1
28...	1140	346	1770	8.0	18.5	860	200	87	88	1
JUL 18...	1050	204	1510	8.1	22.5	720	170	71	65	1
26...	1035	43	1730	8.2	21.0	850	200	86	78	1
AUG 01...	1020	33	1710	8.2	21.0	820	190	84	78	1
SEP 03...	1100	68	1670	8.2	19.0	840	190	88	77	1
<hr/>										
DATE		POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINTY LAB CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L AS SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	
DEC 04...		4.3	258	1400	30	0.3	9.8	2240	3.05	251
JAN 10...		4.3	303	1500	35	0.4	12	2400	3.27	156
19...		9.0	298	1500	41	0.4	10	2420	3.29	183
MAR 07...		4.8	240	1500	36	0.4	4.7	2360	3.21	196
APR 03...		5.7	246	1700	41	0.4	6.0	2620	3.56	143
MAY 15...		6.4	234	1000	28	0.4	7.5	1650	2.25	83.4
JUN 05...		5.9	260	800	20	0.4	11	1370	1.86	174
28...		8.1	184	820	19	0.4	11	1340	1.83	1260
JUL 18...		6.1	204	650	15	0.4	12	1110	1.51	612
26...		4.4	234	760	18	0.4	13	1300	1.77	151
AUG 01...		4.6	236	740	17	0.5	13	1270	1.73	113
SEP 03...		4.6	241	730	17	0.4	13	1260	1.72	232

## MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)
OCT 31...	0910	70	2130	8.5	JAN 02...	1225	23	2900	0.0

## **TRANSMOUNTAIN DIVERSIONS FROM COLORADO RIVER BASIN IN COLORADO**

There are 24 tunnels or ditches, all of which are equipped with water-stage recorders and Parshall flumes or sharp-crested weirs. Records provided by Colorado Division of Water Resources. The locations and diversions of 6 selected diversions are given in the following list.

## **TO PLATTE RIVER BASIN**

09013000 Alva B. Adams Tunnel diverts water from Grand Lake and Shadow Mountain Lake in NW<sup>1/4</sup> sec.9, T.3 N., R.75 W., in Colorado River basin, to Lake Estes (Big Thompson River) in sec.30, T.5 N., R.72 W., in Platte River basin. For daily discharge, see elsewhere in this report.

## **TO ARKANSAS RIVER BASIN**

09042000 Hoosier Pass Tunnel diverts water from tributaries of Blue River in Colorado River basin to Montgomery Reservoir (Middle Fork South Platte River) in sec.14, T.8 S., R.78 W., in Platte River basin; this water is again diverted to South Catamount Creek (tributary to Catamount Creek) in SE<sup>1/4</sup> sec.14, T.13 S., R.69 W., in the Arkansas River basin. Collection conduits extending from the right bank of Crystal Creek (tributary to Spruce Creek) in sec.14, T.7 S., R.78 W., right bank of Spruce Creek in sec.23, T.7 S., R.78 W., right bank of McCullough Gulch in sec.26, T.7 S., R.78 W., right bank of Monte Cristo Creek in SW<sup>1/4</sup>NE<sup>1/4</sup> sec.2, T.8 S., R.78 W., left bank of Bemrose Creek in SW<sup>1/4</sup>SW<sup>1/4</sup> sec.6, T.8 S., R.77 W., and intercepting intermediate tributaries, transport diversions to north portal of the tunnel.

REVISIONS (WATER YEARS).--WDR CO-86-1, WDR CO-86-2: 1984, 1985.

09063700 Homestake Tunnel diverts water from Homestake Lake (Middle Fork Homestake Creek), in sec.17, T.8 S., R.81 W., in Eagle River basin, to Lake Fork in sec.9, T.9 S., R.81 W., in Arkansas River basin. Water is imported to Homestake Lake from tributaries of Homestake Creek by collection conduits that extend from right bank of French Creek in sec.28, T.7 S., R.81 W., and left bank of East Fork Homestake Creek in sec.9, T.8 S., R.81 W., and intercept intermediate tributaries.

DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996												
Diversion	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
09063700	0	0	0	0	0	7,270	14,710	1,770	7,490	6,470	964	3.6

09073000 Twin Lakes Tunnel diverts water from tributaries of Roaring Fork River between headgates (in sec.21, T.11 S., R.83 W., and sec.2, T.11 S., R.83 W.), and west portal of Twin Lakes Tunnel (in sec.24, T.11 S., R.83 W.), in Colorado River basin, to North Fork Lake Creek in sec.22, T.11 S., R.82 W., in Arkansas River basin.

**TRANSMOUNTAIN DIVERSIONS FROM COLORADO RIVER BASIN IN COLORADO****TO ARKANSAS RIVER BASIN--Continued**

09077160 Charles H. Bousted Tunnel diverts water from the main stem and tributaries of Fryingpan River (tributary to Roaring Fork River), in Colorado River basin, to Lake Fork in sec.10, T.9 S., R.81 W., in Arkansas River basin. Water is transported to west portal of tunnel (at lat 39°14'44", long 106°31'47"), by a series of collection conduits extending between headgates on right bank of Sawyer Creek at lat 39°15'58", long 106°38'19" and right bank of Fryingpan River at lat 39°14'40", long 106°31'49", and intercepting intermediate tributaries.

## DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

Diversion	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
09077160	145	149	146	135	136	181	193	1,290	26,470	8,710	790	194
Water year 1996, 38,540												

09077500 Busk-Ivanhoe Tunnel diverts water from Ivanhoe Lake (Ivanhoe Creek), tributary to Fryingpan River in sec.13, T.9 S., R.82 W., in Roaring Fork River basin, to Busk Creek (tributary to Lake Fork) in sec. 20, T.9 S., R.81 W., in Arkansas River basin.

## DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

Diversion	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
09077500	113	73	64	58	52	55	48	87	1,640	77	84	102
Water year 1996, 2,450												

**TRANSMOUNTAIN DIVERSIONS NO LONGER PUBLISHED**

Following is a list of Transmountain Diversions no longer being published in this report. Diversions, in acre-feet, for these sites are available from the State of Colorado, Division of Water Resources.

TO PLATTE RIVER BASIN	TO ARKANSAS RIVER BASIN	TO RIO GRANDE BASIN
09010000 Grand River Ditch	09061500 Columbine Ditch	09118200 Tarbell Ditch
09012000 Eureka Ditch	09062000 Ewing Ditch	09121000 Tabor Ditch
09021500 Berthoud Pass Ditch	09062500 Wurtz Ditch	09341000 Treasure Pass Ditch
09022500 Moffat Water Tunnel	09115000 Larkspur Ditch	09247000 Don LaFont Ditches 1 & 2
09046000 Boreas Pass Ditch		09348000 Williams Creek Squaw Pass Ditch
09047300 Vidler Tunnel		09351000 Pine River-Weminuche Pass Ditch
09050590 Harold D. Roberts Tunnel		09351500 Weminuche Pass Ditch

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations.

### LOW-FLOW PARTIAL-RECORD STATIONS

Measurements of streamflow in the area covered by this report made at low-flow, partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

### DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1996

Station no	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Date	Discharge (ft <sup>3</sup> /s)
*09058900	Moniger Creek near Minturn, CO	Lat 39°43'37", long 106°28'50", in Eagle County, on left bank 1.5 mi upstream from mouth, 7.5 mi north of Minturn.	0.76	1965-96	10-17-95 7-10-96 8-8-96	0.06 0.38 0.10

\*-Also a crest-stage partial-record station.

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or flood-flow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at crest-stage partial-record stations are presented in the following table. Discharge measurements made at low-flow partial-record sites and at miscellaneous sites and for special studies are given in separate tables.

#### CREST-STAGE PARTIAL-RECORD STATIONS

The following table contains annual maximum discharge for crest-stage stations. A crest-stage gage is a device that will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

#### MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS

Station name and number	Location and drainage area	Period of record	Water year 1996 maximum		Period of record maximum		
			Date	Gage height (ft)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
<b>PINEY RIVER BASIN</b>							
*Moniger Creek near Minturn, CO (09058900)	Lat 39°43'37", long 106°28'50", in Eagle County, on left bank 1.5 mi upstream from mouth, 7.5 mi north of Minturn. Drain- age area is 0.76 mi <sup>2</sup> .	1965-96	b 6-15-96	a 1.96 1.60	b 4.5	5-21-89	2.05 29

\*-Also a low-flow partial-record station.

a-Affected by backwater from ice.

b-Not determined.

**375546107412000 Ironton Meteorological Station Near Ouray, CO**

LOCATION.--Lat 37°55'46", long 107°41'20", Ouray County, Hydrologic Unit 14020006, 0.8 mi southwest of Ironton, and 1.2 mi north of Red Mountain No. 2.

PERIOD OF RECORD.--July 1992 to current year.

GAGE.--Weighing-bucket rain gage with satellite telemetry. Elevation of gage is 10,020 ft above sea level, from topographic map.

REMARKS.--Unpublished air-temperature and rainfall data for water years 1992 and 1993 are available in district office. Daily record for air temperature is good. Daily record for accumulated rainfall is good.

## TEMPERATURE, AIR (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	9.9	-3.5	1.8	5.7	-3.5	.1	9.9	-6.8	-1.5	-7.1	-14.5	-11.1
2	11.0	-3.8	1.7	.0	-13.7	-6.3	8.5	-7.9	-2.6	-4.6	-19.7	-13.6
3	13.9	-3.8	3.9	2.5	-14.5	-7.4	8.1	-10.5	-3.7	-2.8	-11.3	-6.2
4	7.4	-5.3	-.6	3.9	-10.1	-4.7	7.8	-3.1	1.7	-1.7	-9.8	-5.5
5	2.1	-9.0	-3.9	8.5	-10.9	-2.2	6.7	-.7	2.5	-2.4	-11.3	-6.9
6	12.8	-9.0	-.1	3.9	-7.5	-1.8	5.3	-6.8	-.3	-3.8	-20.2	-10.9
7	12.4	-3.5	3.6	5.7	-5.7	.0	-.7	-7.1	-4.0	6.0	-12.9	-6.6
8	12.4	-3.5	2.4	9.2	-7.1	-.5	.4	-14.9	-7.4	7.4	-10.9	-4.4
9	11.3	-3.5	2.8	5.7	-3.5	1.3	1.4	-13.3	-6.7	8.1	-9.0	-3.0
10	16.1	-2.4	4.6	-.7	-16.6	-8.4	6.0	-11.7	-4.7	1.4	-14.5	-5.5
11	18.5	-.7	7.2	5.3	-17.0	-4.4	7.8	-7.5	.0	3.9	-14.1	-7.5
12	12.8	.4	7.8	7.1	-3.8	1.9	2.8	-1.7	.6	12.4	-9.8	-1.5
13	10.2	-4.2	1.1	8.5	-3.1	1.1	2.1	-4.2	-.5	13.5	-7.9	-2.1
14	13.5	-4.6	2.7	10.6	-5.7	-.1	-.3	-15.3	-6.6	7.8	-9.4	-4.4
15	17.3	-2.1	5.5	11.0	-4.9	1.2	3.2	-15.3	-7.5	7.8	-7.9	-1.4
16	13.5	-1.0	4.5	8.8	-4.9	.7	-1.7	-12.1	-6.6	6.4	-6.0	-1.5
17	13.5	-2.4	4.0	7.8	-6.4	-1.1	-.7	-14.5	-10.2	-3.5	-16.2	-7.6
18	15.0	-1.7	5.6	9.9	-5.7	-.5	-.3	-15.3	-9.9	-6.4	-23.1	-14.4
19	8.5	-4.6	1.4	11.7	-4.6	.4	.4	-17.4	-12.1	-7.9	-13.3	-9.6
20	12.4	-5.3	1.5	9.5	-4.9	-.1	-5.7	-17.9	-12.8	-5.3	-17.0	-12.3
21	12.8	-2.8	4.7	10.2	-5.7	.8	-5.7	-18.8	-13.7	-3.8	-17.0	-9.4
22	5.3	-10.9	-4.2	6.0	-6.0	-.6	-6.0	-20.2	-14.7	-7.9	-13.3	-10.0
23	1.8	-16.2	-7.2	5.7	-6.0	-1.7	-4.9	-22.6	-16.5	-9.8	-16.2	-13.8
24	7.8	-9.4	-2.0	9.2	-4.9	.0	.7	-18.3	-12.0	-6.0	-14.1	-10.0
25	7.1	-7.1	-1.3	12.1	-5.3	.7	1.4	-15.3	-9.1	-4.2	-17.4	-9.6
26	10.2	-5.3	2.9	6.0	-10.9	-2.5	3.2	-14.1	-8.3	-14.9	-24.1	-18.6
27	9.2	-3.1	1.9	-4.9	-19.7	-11.4	2.8	-13.3	-8.0	-1.7	-25.2	-9.0
28	10.2	-4.2	2.3	-3.1	-19.7	-9.5	-.3	-12.9	-7.3	-6.0	-13.3	-8.5
29	11.3	-1.0	3.7	.0	-9.0	-4.8	-3.1	-17.0	-11.6	-.3	-7.9	-3.8
30	8.1	-1.4	2.5	10.2	-9.0	-2.4	-5.3	-11.7	-7.5	-2.1	-5.7	-3.6
31	8.1	-.3	3.5	---	---	---	-2.1	-8.6	-5.6	-4.2	-6.0	-5.4
MONTH	18.5	-16.2	2.1	12.1	-19.7	-2.1	9.9	-22.6	-6.7	13.5	-25.2	-7.7

## 375546107412000 IRONTON METEOROLOGICAL STATION NEAR OURAY, CO--Continued

TEMPERATURE, AIR (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	-2.8	-9.4	-6.9	-3.8	-19.7	-11.3	9.9	-5.7	2.0	9.5	-2.1	3.9
2	-9.0	-16.2	-11.5	.7	-16.6	-9.0	9.9	-3.5	3.1	11.7	-.7	6.2
3	-6.0	-23.6	-15.7	5.7	-14.9	-4.9	3.2	-8.3	-1.8	12.1	-.7	7.2
4	2.1	-19.3	-8.0	.0	-4.6	-2.5	2.5	-8.3	-3.0	13.9	-1.4	6.4
5	7.4	-6.0	-1.0	-1.7	-6.4	-4.2	3.9	-8.3	-2.6	14.3	-1.7	6.5
6	4.6	-9.8	-3.3	-6.4	-18.3	-9.3	6.7	-10.1	-1.6	14.3	-1.4	6.4
7	8.5	-10.9	-3.6	3.2	-18.8	-8.6	9.2	-5.7	1.5	14.6	-1.0	7.8
8	8.5	-8.6	-1.9	2.8	-14.1	-6.2	11.7	-3.5	3.2	15.0	-.7	9.5
9	9.2	-7.9	-1.3	9.9	-12.5	-2.3	13.9	-3.1	4.7	12.1	-1.0	6.4
10	7.1	-7.5	-1.9	13.1	-4.2	2.9	11.0	-2.1	2.8	12.8	-2.4	5.0
11	6.4	-6.4	-1.3	8.8	-6.0	1.1	2.5	-4.2	-2.0	16.5	-1.4	7.8
12	10.6	-7.1	-1.5	4.2	-4.2	-1.0	6.4	-5.7	.0	18.5	1.4	9.4
13	7.8	-8.6	-2.3	-1.7	-11.3	-4.8	-2.8	-9.0	-6.3	18.5	2.1	10.3
14	7.8	-8.6	-2.1	.7	-12.1	-5.8	-1.4	-12.1	-6.8	16.5	2.5	9.7
15	5.7	-8.6	-3.0	2.8	-10.9	-4.5	6.4	-13.7	-2.8	18.5	1.4	10.0
16	8.1	-9.8	-2.4	7.5	-7.1	-1.7	9.2	-7.9	2.1	17.3	3.9	11.1
17	8.5	-9.0	-.4	9.4	-12.1	-4.7	2.5	-4.2	-.1	16.1	4.2	9.5
18	3.2	-9.0	-2.6	2.1	-17.0	-7.8	2.1	-7.9	-2.1	17.7	2.8	12.0
19	3.9	-8.3	-2.2	1.8	-18.3	-8.7	-.3	-15.7	-7.1	16.9	7.4	12.5
20	3.5	-2.1	.1	8.8	-12.5	-2.8	-.7	-13.3	-6.2	13.9	.4	7.7
21	1.1	-2.4	-.7	10.2	-7.5	.2	1.8	-12.5	-5.2	17.7	-.7	8.3
22	1.8	-11.7	-2.7	8.5	-6.8	1.9	3.9	-13.3	-4.2	14.6	3.9	9.6
23	.4	-21.1	-9.2	1.1	-12.9	-3.4	11.7	-6.0	2.8	9.2	-2.1	5.7
24	3.5	-10.9	-3.5	-9.0	-12.9	-10.8	14.6	-1.4	8.1	9.2	-2.4	4.4
25	.4	-11.3	-5.3	-2.8	-11.7	-8.1	9.2	-3.1	4.8	7.4	-2.1	1.8
26	-7.9	-16.2	-11.7	-1.0	-10.5	-6.1	10.6	-4.2	3.2	3.2	-3.1	-.3
27	-10.1	-18.8	-15.1	6.0	-10.1	-2.8	10.6	-2.8	5.2	9.2	-2.1	3.4
28	-7.1	-21.1	-14.2	5.3	-7.5	-.3	-2.8	-12.9	-7.3	9.9	.7	4.7
29	-3.1	-17.4	-11.9	4.2	-5.3	-2.3	5.3	-15.3	-3.8	15.0	1.8	8.3
30	---	---	---	4.6	-9.4	-2.8	8.8	-2.8	3.7	12.8	.7	6.9
31	---	---	---	8.8	-8.6	-1.1	---	---	---	13.1	-1.7	5.9
MONTH	-10.6	-23.6	-5.1	13.1	-19.7	-4.2	14.6	-15.7	-.5	18.5	-3.1	7.2
	JUNE			JULY			AUGUST			SEPTEMBER		
1	13.1	-.7	6.0	20.1	3.5	12.4	22.5	5.7	12.4	19.7	3.9	11.5
2	15.4	-2.1	7.1	21.7	5.7	12.7	19.3	6.4	11.6	18.1	4.6	10.2
3	17.3	.0	9.1	22.1	8.1	14.7	17.7	.9	11.3	22.1	3.9	11.9
4	18.1	2.1	10.5	22.5	7.8	13.9	17.3	4.6	11.8	21.7	5.3	12.5
5	---	---	---	20.5	7.1	13.7	21.3	2.1	11.6	16.1	6.0	9.7
6	---	---	---	22.1	6.7	14.1	20.5	2.8	12.6	12.1	2.5	6.1
7	19.7	2.1	11.3	22.1	8.1	14.7	20.5	3.2	12.0	13.5	0	6.1
8	20.1	3.2	11.9	19.3	6.0	11.7	18.1	3.9	10.3	16.9	-1.0	7.3
9	19.7	4.6	12.1	17.3	7.1	11.2	17.3	4.2	10.4	18.5	1.8	9.0
10	20.5	5.7	13.8	19.3	5.3	12.1	19.3	2.8	10.6	18.1	3.2	10.8
11	19.3	3.9	12.2	20.5	5.3	13.0	22.9	3.2	13.2	15.4	4.6	8.8
12	16.9	5.7	10.7	20.5	7.1	12.9	23.3	6.7	14.9	12.4	4.6	7.2
13	16.5	5.7	9.7	18.1	5.7	11.7	25.1	6.0	15.3	13.1	2.8	6.6
14	12.8	5.3	8.2	21.3	4.2	12.8	22.9	7.4	14.8	8.5	-.3	3.6
15	8.1	1.8	5.4	20.5	6.0	13.0	20.9	6.7	13.8	11.0	-.3	4.1
16	17.7	.7	8.8	18.9	7.1	11.7	20.5	4.2	12.3	12.4	-1.4	5.7
17	20.1	3.2	12.0	19.7	6.7	11.4	19.7	5.7	10.2	6.7	-2.1	1.1
18	20.1	2.5	11.6	15.4	6.4	10.2	17.7	3.9	10.1	2.8	-8.6	-2.6
19	22.1	2.5	12.9	21.3	4.6	12.8	20.1	3.9	12.1	6.0	-9.8	-2.1
20	20.1	5.3	12.4	22.5	5.3	13.6	16.5	5.3	10.3	9.9	-2.8	1.8
21	15.4	5.7	9.5	21.7	4.2	13.4	18.9	4.9	9.8	15.0	-3.5	4.9
22	18.5	3.5	10.7	21.3	4.9	13.6	16.5	3.5	9.2	16.9	0	7.4
23	19.7	1.1	10.4	22.1	5.7	13.6	15.8	4.6	9.9	14.6	1.8	7.2
24	18.5	2.8	11.4	21.3	4.9	13.4	17.7	4.9	10.5	15.4	.4	7.0
25	18.1	3.9	11.6	18.9	6.0	11.7	16.1	5.7	10.1	11.3	.4	3.8
26	17.3	4.6	10.8	19.7	6.7	12.7	14.6	6.0	10.3	3.9	-6.0	-.4
27	15.0	.0	8.6	22.1	5.3	13.6	16.9	6.4	10.3	3.2	-10.9	-3.5
28	14.3	2.5	8.0	18.1	6.7	12.0	17.7	6.0	11.2	12.1	-4.6	2.6
29	18.1	1.1	10.6	17.3	6.4	10.9	21.3	5.7	12.4	16.1	-2.1	5.7
30	19.3	7.1	12.2	19.3	4.9	11.2	18.9	2.8	10.6	14.3	-1.0	5.6
31	---	---	---	20.5	4.2	12.0	19.3	2.5	10.4	---	---	---
MONTH	---	---	---	22.5	3.5	12.7	25.1	.9	11.5	22.1	-10.9	5.7

## GUNNISON RIVER BASIN

**375546107412000 IRONTON METEOROLOGICAL STATION NEAR OURAY, CO--Continued**

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.0	.5	.0	.4	.6	.0	.0	.0	.0	.0	.1	.0
2	.0	.0	.0	.1	.3	.0	.2	.0	.0	.0	.2	.0
3	.0	.0	.0	.5	.0	.0	.2	.0	.0	.0	.1	.0
4	.2	.0	.0	.3	.1	.0	.3	.0	.0	.1	.0	.0
5	.0	.0	.0	.0	.0	.4	.1	.0	---	.2	.0	.1
6	.0	.0	.0	.0	.0	.2	.0	.0	---	.0	.0	.2
7	.0	.0	.3	.0	.0	.1	.0	.0	.0	.0	.0	.0
8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0
9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0
10	.0	.9	.0	.2	.0	.0	.2	.0	.0	.0	.2	.0
11	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.4
12	.0	.0	.2	.0	.0	.0	.1	.0	.0	.0	.0	.2
13	.0	.0	.1	.0	.0	.1	.8	.0	.4	.0	.0	.2
14	.0	.0	.2	.0	.0	.0	.1	.0	.3	.0	.0	.6
15	.0	.0	.0	.0	.0	.1	.0	.0	.0	.2	.0	.2
16	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.0	.1
17	.0	.0	.0	1.9	.0	.3	.3	.0	.1	.6	.0	.2
18	.0	.0	.0	.1	.1	.0	.4	.0	.0	.0	.1	.1
19	.0	.0	.0	1.2	.1	.0	.0	.0	.0	.0	.0	.3
20	.0	.0	.0	.0	.3	.0	.0	.0	.3	.0	.0	.1
21	.0	.0	.0	.0	.5	.0	.0	.0	.9	.0	.1	.0
22	.2	.0	.0	.2	.0	.0	.0	.0	.1	.0	.0	.0
23	.1	.0	.0	.2	.0	.1	.0	.0	.0	.0	.1	.0
24	.0	.0	.0	.1	.0	.5	.0	.0	.0	.0	.1	.0
25	.0	.0	.0	.1	.0	.3	.0	.3	.0	.1	.0	.2
26	.0	.7	.0	.0	.4	.0	.0	.1	.1	.0	.0	.2
27	.0	.2	.0	.2	.6	.0	.0	.0	.6	.0	.0	.1
28	.0	.1	.0	.0	.0	.0	.0	.0	.2	.2	.0	.0
29	.0	.0	.0	.0	.0	.2	.0	.0	.0	.1	.0	.0
30	.0	.0	.7	.9	---	.0	.0	.0	.0	.0	.0	.0
31	.0	---	1.1	.6	---	.0	---	.0	---	.0	---	---
TOTAL	0.5	2.4	2.6	7.1	3.0	2.3	3.0	0.4	---	2.0	0.8	3.2

**375852107455200 GOVERNOR BASIN METEOROLOGICAL STATION NEAR TELLURIDE, CO**

LOCATION.--Lat 37°58'52", long 107°45'52", Ouray County, Hydrologic Unit 14020006, 0.4 mi east of Stony Mountain, and 4.5 mi north of Telluride.

PERIOD OF RECORD.--October 1992 to current year.

GAGE.--Weighing-bucket rain gage with satellite telemetry. Elevation of gage is 11,150 ft above sea level, from topographic map.

REMARKS.--Unpublished air-temperature and rainfall data for water year 1993 are available in district office. Daily record for air temperature is good. Daily record for accumulated rainfall is good.

## TEMPERATURE, AIR (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	4.2	-3.1	.4	-.7	-6.0	-2.3	5.3	-2.8	-.6	-10.5	-16.6	-13.6
2	7.4	-4.6	.4	-4.2	-13.7	-8.3	2.5	-5.3	-2.8	-11.3	-23.1	-17.3
3	9.5	-2.4	3.6	-.3	-14.1	-7.9	.0	-9.0	-4.2	-3.8	-11.3	-6.7
4	4.9	-7.1	-2.8	-1.4	-9.8	-5.8	2.5	-3.1	-.5	-4.9	-8.6	-7.2
5	-2.8	-9.8	-6.5	3.9	-9.0	-2.1	2.5	-1.7	-.1	-6.0	-13.3	-9.2
6	8.5	-8.3	.1	-.3	-5.3	-2.7	-.3	-5.7	-2.2	-7.5	-17.4	-11.6
7	8.1	-2.4	2.4	.7	-4.2	-2.1	-3.1	-7.5	-4.6	.4	-11.7	-5.6
8	8.5	-1.0	2.3	6.0	-6.0	-.1	-6.0	-15.7	-9.8	.7	-4.2	-1.9
9	7.4	-2.1	2.4	1.1	-3.1	-.8	-5.7	-12.5	-8.8	2.5	-3.8	-1.2
10	12.1	.4	4.8	-3.1	-16.2	-10.0	-1.0	-9.4	-4.8	-.3	-13.3	-6.1
11	13.5	1.8	6.6	3.2	-16.2	-2.7	2.1	-4.6	-1.1	.7	-7.9	-3.6
12	8.1	1.8	6.3	4.6	-1.0	1.0	1.4	-4.2	-1.0	6.0	-6.0	-.5
13	5.3	-4.6	.1	3.9	-3.5	-.4	.0	-5.7	-3.4	3.5	-4.9	-1.3
14	9.9	-3.5	2.5	6.4	-4.9	-1.1	-4.9	-13.3	-8.3	.4	-7.5	-4.8
15	12.4	1.1	5.7	6.7	-2.4	.9	-1.7	-12.5	-6.9	2.5	-4.2	-1.5
16	10.2	1.1	4.6	5.3	-4.6	-.2	-3.5	-12.1	-7.2	.4	-6.0	-3.1
17	9.9	-.7	3.6	5.7	-5.7	-1.8	-6.4	-12.5	-10.6	-4.2	-18.3	-9.6
18	11.0	.4	5.1	6.7	-3.5	-.4	-6.8	-14.5	-11.4	-10.5	-25.7	-17.2
19	4.2	-3.1	1.1	7.4	-2.1	.6	-9.8	-16.2	-14.1	-9.8	-16.2	-11.4
20	8.8	-3.1	2.7	6.7	-3.5	-.2	-8.6	-17.0	-13.5	-12.1	-16.2	-14.2
21	8.8	.7	4.5	5.7	-2.8	1.0	-12.1	-19.7	-16.0	-6.8	-14.5	-9.2
22	3.9	-12.9	-6.6	1.1	-6.4	-2.1	-12.9	-21.1	-17.0	-8.6	-15.3	-11.9
23	-1.7	-15.7	-8.6	1.1	-5.7	-2.7	-12.1	-21.1	-16.6	-14.5	-18.8	-16.6
24	4.2	-4.2	-1.2	5.7	-2.8	.3	-8.3	-14.5	-11.9	-10.5	-16.6	-12.7
25	4.2	-4.2	-.6	7.4	-3.5	.9	-3.8	-12.5	-9.5	-8.6	-20.2	-12.0
26	6.4	-2.1	1.9	2.1	-13.3	-4.7	-4.9	-11.7	-9.1	-18.3	-22.6	-20.6
27	3.9	-2.4	.6	-11.7	-19.7	-14.0	-3.8	-11.7	-8.9	-4.6	-21.6	-9.3
28	6.4	-3.1	2.1	-4.9	-19.3	-9.4	-5.3	-13.3	-9.2	-8.6	-12.9	-10.5
29	7.4	-.7	3.0	-2.1	-7.9	-5.3	-8.3	-15.7	-12.8	-3.8	-10.5	-6.3
30	3.5	-1.4	1.5	3.9	-5.7	-.7	-6.4	-10.1	-8.4	-4.6	-6.8	-5.5
31	4.2	-.7	1.4	---	---	---	4.0	-10.5	-6.9	-6.8	-7.9	-7.4
MONTH	13.5	-15.7	1.4	7.4	-19.7	-2.8	5.3	-21.1	-7.8	6.0	-25.7	-8.7

## GUNNISON RIVER BASIN

## 375852107455200 GOVERNOR BASIN METEOROLOGICAL STATION NEAR TELLURIDE, CO--Continued

TEMPERATURE, AIR (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	-5.3	-11.3	-8.7	-7.9	-19.3	-12.1	6.0	-4.9	1.4	6.0	-1.7	2.3
2	-10.9	-19.7	-13.9	-2.4	-13.3	-7.5	4.6	-4.2	1.0	7.8	.4	4.8
3	-10.9	-20.7	-14.7	.4	-8.6	-4.4	.4	-8.6	-4.3	8.8	.7	5.2
4	-2.4	-17.0	-7.7	-2.4	-7.1	-4.7	-1.4	-7.9	-4.8	9.9	-.7	4.9
5	2.1	-7.5	-2.9	-4.9	-8.6	-6.7	1.1	-8.3	-4.5	10.6	.7	5.4
6	.4	-8.3	-4.5	-7.1	-18.3	-10.9	3.2	-9.0	-3.0	10.6	.4	5.3
7	1.4	-9.0	-4.8	-.7	-17.4	-7.4	7.1	-5.3	.1	11.0	.7	6.2
8	4.6	-7.5	-2.1	1.1	-12.9	-6.1	7.8	-2.8	2.6	10.6	.0	6.8
9	3.9	-5.7	-2.1	6.4	-10.5	-2.3	9.2	-1.4	3.3	8.1	-.7	4.7
10	2.8	-6.8	-2.7	8.5	-3.5	1.8	7.1	-2.8	2.0	8.8	-.7	4.1
11	1.8	-5.3	-2.8	4.6	-4.9	-.9	.7	-5.3	-3.6	12.8	2.1	7.3
12	1.8	-5.7	-3.2	-.3	-6.0	-3.4	2.5	-8.6	-2.6	14.6	4.2	8.9
13	2.1	-7.5	-3.3	-3.5	-12.5	-6.8	-3.5	-10.9	-8.4	15.0	4.9	9.5
14	3.5	-6.8	-1.8	-3.1	-12.5	-8.4	-4.6	-12.9	-9.2	13.5	4.6	8.8
15	2.5	-8.3	-3.1	-.7	-10.9	-5.3	5.3	-12.9	-3.2	14.3	3.5	8.4
16	3.5	-7.5	-2.5	7.5	-9.0	-4.3	6.7	-5.7	.9	13.9	4.2	9.1
17	3.2	-7.9	-1.3	9.4	-11.3	-7.9	-.0	-4.9	-2.4	12.4	2.1	7.0
18	.4	-7.5	-3.9	3.3	-16.6	-10.1	-1.4	-9.8	-4.2	13.1	4.9	10.0
19	0.0	-8.3	-3.9	-2.8	-16.6	-8.6	-4.6	-15.7	-9.9	11.7	4.6	8.9
20	-.7	-3.8	-2.0	4.2	-9.4	-3.3	-5.3	-10.5	-7.7	9.9	2.1	6.0
21	-1.7	-4.2	-2.7	4.6	-5.3	-.1	-.7	-14.9	-7.5	13.5	.7	7.3
22	-1.0	-13.7	-5.2	4.2	-3.8	.4	.4	-10.1	-4.8	11.0	3.2	7.7
23	-2.4	-19.7	-10.9	-1.4	-12.9	-5.8	8.1	-3.8	2.3	6.7	-1.7	2.8
24	-1.7	-10.5	-5.5	-10.5	-14.9	-12.5	11.3	-.4	6.5	4.9	-1.7	2.3
25	-3.1	-11.3	-7.6	-6.4	-13.7	-9.8	6.7	-1.0	3.1	3.5	-4.9	.2
26	-9.8	-18.3	-14.1	1.1	-11.3	-7.7	8.1	-3.5	2.5	.4	-6.0	-2.4
27	-14.9	-20.7	-17.5	2.5	-11.3	-3.7	7.8	-5.3	3.1	6.0	-2.8	1.5
28	-10.5	-19.7	-15.4	1.8	-7.9	-2.2	-5.3	-12.5	-10.2	6.7	-.3	2.5
29	-9.4	-15.7	-13.4	-.3	-6.4	-4.7	2.1	-15.3	-4.9	10.6	.4	6.3
30	---	---	---	.4	-12.9	-4.9	6.0	-2.8	1.3	8.8	1.8	5.6
31	---	---	---	4.6	-7.5	-2.2	---	---	---	8.8	.0	4.8
MONTH	4.6	-20.7	-6.4	9.4	-19.3	-5.6	11.3	-15.7	-2.2	15.0	-6.0	5.6
	JUNE			JULY			AUGUST			SEPTEMBER		
1	8.8	-1.0	4.4	16.9	4.6	10.6	17.7	8.5	12.8	16.1	6.4	10.7
2	11.3	-.7	5.7	16.1	7.4	11.5	16.1	8.8	11.5	14.3	5.7	9.0
3	13.1	2.1	7.9	17.3	7.1	12.5	13.5	7.8	10.5	16.5	5.7	10.3
4	15.0	4.2	10.0	18.9	7.8	12.9	13.5	4.6	9.8	16.5	6.4	10.7
5	---	---	---	17.3	8.1	12.3	16.1	3.5	10.6	12.1	4.2	8.0
6	---	---	---	19.3	7.8	13.3	16.9	4.6	10.9	9.2	2.5	4.7
7	15.8	3.9	10.3	18.1	9.2	13.4	17.3	4.9	10.9	8.8	.7	4.6
8	16.1	6.4	10.8	15.4	6.4	10.5	14.6	5.3	9.4	12.1	1.4	6.7
9	15.8	6.7	10.5	12.8	6.4	9.5	14.3	5.3	9.5	13.1	3.9	8.2
10	16.1	7.1	11.5	15.8	5.3	10.2	16.9	5.7	10.8	13.9	4.6	9.4
11	15.4	6.7	11.0	17.3	7.1	11.8	18.5	5.3	12.2	10.2	3.9	7.0
12	13.5	4.9	9.1	16.9	8.1	12.6	20.1	8.1	14.0	9.2	3.2	5.3
13	11.3	3.5	6.9	15.0	7.4	10.8	20.1	9.2	14.1	8.1	2.1	5.0
14	8.5	2.8	5.6	17.3	5.3	12.0	18.1	8.5	13.1	5.3	-1.0	2.2
15	5.3	1.8	4.0	16.1	6.0	12.3	16.9	6.7	11.9	7.4	-1.0	2.6
16	14.6	2.8	8.2	15.4	6.0	11.1	16.9	5.3	11.4	9.5	.0	5.0
17	15.8	6.0	10.4	15.0	7.8	10.6	15.4	6.4	9.5	2.1	-3.5	-1.1
18	15.4	4.2	10.3	13.5	7.4	9.8	12.1	4.2	8.5	-1.0	-8.6	-4.3
19	18.5	6.0	11.6	18.1	6.7	12.4	15.8	4.9	10.3	1.8	-8.6	-3.2
20	16.5	4.9	10.5	18.9	7.4	13.3	14.3	5.7	9.6	6.0	-2.8	.4
21	11.7	5.3	7.9	18.5	6.7	13.1	12.4	6.0	8.0	11.3	-1.7	5.0
22	14.3	4.6	10.1	18.5	7.1	13.1	12.8	5.3	8.0	10.6	1.8	6.2
23	15.4	3.2	9.4	19.3	7.4	13.0	12.1	5.3	7.9	11.0	1.4	6.0
24	15.4	3.5	10.7	18.9	6.7	13.1	13.1	4.9	8.6	11.7	2.1	6.0
25	14.3	4.9	10.1	15.8	8.5	11.4	13.1	6.0	7.9	6.7	-.7	2.8
26	13.1	5.7	9.4	16.5	7.8	12.2	11.7	6.0	8.3	.4	-8.3	-2.2
27	9.9	3.5	7.1	17.7	7.1	12.3	12.8	6.0	8.3	-.3	-14.1	-5.1
28	8.5	3.9	6.0	14.6	6.7	10.5	14.6	6.0	9.7	9.5	-3.1	2.7
29	14.3	2.5	8.9	12.4	5.7	9.1	16.9	7.1	11.5	12.8	.7	6.0
30	14.3	6.7	9.9	15.8	5.7	10.5	15.0	6.0	10.3	11.7	1.4	5.4
31	---	---	---	17.7	6.4	11.8	15.4	4.2	9.8	---	---	---
MONTH	---	---	---	19.3	4.6	11.7	20.1	3.5	10.3	16.5	-14.1	4.5

## 375852107455200 GOVERNOR BASIN METEOROLOGICAL STATION NEAR TELLURIDE, CO--Continued

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.0	.6	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0
2	.0	.0	.0	.1	.0	.0	.2	.0	.0	.0	.1	.0
3	.0	.0	.0	.3	.0	.0	.2	.0	.0	.2	.1	.1
4	.2	.0	.0	.3	.2	.1	.5	.0	.0	.0	.0	.0
5	.1	.0	.0	.0	.0	.4	.3	.0	---	.0	.0	.6
6	.0	.0	.0	.0	.0	.3	.0	.0	---	.1	.0	.3
7	.0	.0	.5	.0	.1	.4	.0	.0	.0	.0	.0	.0
8	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	.0	.0
9	.0	.0	.0	.0	.2	.0	.0	.0	.0	.1	.0	.0
10	.0	.7	.0	.2	.3	.0	.1	.0	.0	.1	.0	.0
11	.0	.0	.0	.0	.2	.0	.1	.0	.0	.0	.0	.2
12	.0	.0	.7	.0	.0	.1	.0	.0	.0	.0	.0	.3
13	.0	.0	.2	.0	.0	.2	.0	.0	.3	.0	.0	.4
14	.0	.0	.2	.0	.3	.0	.0	.0	.4	.0	.0	.5
15	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.0	.4
16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
17	.0	.0	.0	2.0	.0	.1	.0	.0	.0	.2	.1	.3
18	.0	.0	.0	.1	.0	.0	.0	.0	.0	.2	.1	.0
19	.0	.0	.0	.2	.3	.0	.0	.0	.0	.0	.0	.7
20	.0	.0	.1	.0	1.0	.0	.0	.0	.3	.0	.1	.2
21	.0	.0	.0	.2	1.0	.0	.0	.0	.6	.0	.2	.0
22	.4	.0	.0	.1	.1	.0	.0	.0	.1	.0	.1	.0
23	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.0
24	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0
25	.0	.0	.0	.0	.0	.2	.0	.3	.0	.0	.2	.1
26	.0	.8	.0	.0	.4	.2	.0	.2	.1	.1	.1	.2
27	.0	.3	.0	.1	.0	.0	.0	.0	.5	.0	.3	.1
28	.0	.0	.0	.0	.1	.0	.0	.0	.7	.1	.1	.0
29	.0	.0	.0	.0	.1	.1	.0	.0	.0	.2	.0	.0
30	.0	.0	.3	.4	---	.0	.0	.0	.0	.0	.0	.0
31	.0	---	1.2	.0	---	.0	---	.0	---	.0	.0	---
TOTAL	0.7	2.4	3.2	4.6	4.5	2.6	1.4	0.5	---	1.6	1.6	4.6

## GUNNISON RIVER BASIN

**380102107402200 OURAY METEOROLOGICAL STATION AT OURAY, CO**

LOCATION.--Lat 38°01'02", long 107°40'22", in SW<sup>1/4</sup> sec.31,T.43 N, R.7 W., Ouray County, Hydrologic Unit 14020006, 0.4 mi southwest of post office in Ouray.

PERIOD OF RECORD.--December 1992 to current year.

GAGE.--Weighing-bucket rain gage with satellite telemetry. Elevation of gage is 7,960 ft above sea level, from topographic map.

REMARKS.--Unpublished air-temperature and rainfall data for water year 1993 are available in district office. Daily record for air temperature is good. Daily record for accumulated rainfall is good.

## TEMPERATURE, AIR (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	13.1	1.8	6.8	8.5	.0	3.8	11.7	1.1	4.6	-4.9	-9.8	-7.2
2	13.5	1.4	6.3	3.5	-5.7	-1.5	10.6	-1.0	4.3	-7.5	-13.7	-11.0
3	18.9	2.1	9.5	5.7	-6.4	-1.7	7.1	-2.4	1.5	2.1	-9.4	-2.9
4	13.9	.0	4.4	7.8	-3.5	.9	9.5	2.1	6.1	4.2	-4.6	-.8
5	6.0	-1.4	1.1	11.0	-3.5	2.9	9.9	2.5	6.1	.4	-6.8	-3.3
6	14.3	-5.3	3.5	8.1	-.3	3.8	8.5	-2.1	4.3	.0	-12.9	-6.0
7	17.3	3.2	10.1	9.2	-.3	4.1	3.2	-2.1	-.1	4.6	-7.1	-2.8
8	15.0	1.8	7.6	13.5	-.7	5.2	1.8	-7.1	-2.3	9.9	-2.8	1.0
9	16.9	3.2	8.8	10.2	3.2	7.3	3.5	-4.9	-1.3	10.2	-1.4	3.1
10	19.7	4.2	10.3	3.2	-9.4	-3.9	8.1	-3.1	.4	4.9	-6.0	-.6
11	22.5	6.7	13.5	6.0	-9.8	-2.1	9.2	-1.7	3.2	4.2	-7.9	-3.2
12	18.1	6.7	14.2	8.1	.0	4.1	9.5	2.1	5.9	6.0	-6.4	-.7
13	11.0	-.3	4.8	11.3	2.5	5.7	9.5	-.3	4.6	8.5	-2.1	1.2
14	16.5	-.3	7.1	12.1	.7	4.6	-.3	-6.8	-2.7	6.4	-4.2	.4
15	20.9	4.6	11.1	13.5	-1.4	4.7	2.1	-8.6	-3.3	8.5	-2.4	2.1
16	18.5	6.4	12.1	12.4	1.1	6.1	3.2	-4.9	-.5	7.8	-.3	3.2
17	18.1	4.6	10.0	10.2	-.3	3.9	-2.8	-8.3	-5.1	1.4	-11.7	-3.9
18	19.7	5.7	11.3	11.7	.4	4.9	.0	-10.1	-5.4	-4.9	-16.6	-11.8
19	12.1	.7	6.7	13.5	.0	5.5	.0	-9.0	-5.6	-1.0	-9.8	-5.2
20	15.8	-1.0	6.2	12.8	1.4	5.0	-2.8	-9.4	-6.4	-3.5	-11.3	-7.5
21	17.3	3.5	10.2	11.7	-.3	4.6	-4.6	-10.9	-7.6	.7	-6.4	-2.0
22	12.4	-6.4	.2	9.5	-.3	4.0	-5.7	-13.3	-9.7	-1.0	-9.0	-4.3
23	1.4	-9.8	-3.6	8.1	-1.7	2.7	-3.8	-14.5	-10.8	-6.8	-11.7	-9.4
24	9.5	-5.3	.7	13.1	-2.1	3.9	-1.0	-13.3	-8.9	-1.0	-9.8	-4.4
25	11.7	-2.1	3.3	15.4	1.8	7.0	.0	-11.7	-6.3	1.1	-11.7	-3.8
MONTH	22.5	-9.8	7.2	15.4	-11.7	2.6	11.7	-14.5	-1.9	10.2	-17.4	-3.3

## 380102107402200 OURAY METEOROLOGICAL STATION AT OURAY, CO--Continued

TEMPERATURE, AIR (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	-1.4	-6.8	-4.0	-1.0	-12.5	-5.8	14.6	1.1	8.5	14.6	2.8	9.0
2	-3.5	-10.9	-7.6	3.5	-8.6	-3.4	13.5	1.4	8.7	17.7	3.9	11.2
3	-4.2	-17.4	-11.1	8.1	-6.4	-.8	5.3	-1.4	1.4	19.7	7.1	12.8
4	5.7	-11.7	-3.9	5.3	1.1	3.2	6.7	-2.1	1.1	19.7	6.7	12.7
5	6.0	-1.7	1.3	3.9	-2.4	.6	7.1	-2.8	.7	20.5	6.0	12.9
6	6.7	-2.4	.6	-2.4	-10.9	-5.3	11.3	-3.1	3.6	20.1	6.7	13.4
7	7.1	-3.1	1.0	4.6	-10.9	-3.0	12.8	.7	6.4	21.7	7.1	14.5
8	8.8	-1.7	2.2	5.7	-6.4	-.8	16.1	2.8	8.7	20.9	9.9	16.0
9	11.3	-.7	3.8	9.9	-3.8	2.0	18.1	4.6	10.5	17.3	7.1	13.0
10	10.6	-1.4	3.2	13.9	.4	6.3	16.1	2.8	9.2	18.5	3.2	10.7
11	6.0	-3.1	.8	12.1	1.4	6.0	7.4	.0	2.4	22.5	6.0	14.2
12	8.1	-1.7	1.8	7.8	-1.4	3.4	12.1	-1.7	4.2	24.2	8.5	16.3
13	9.5	-1.4	2.7	4.2	-2.8	1.0	2.5	-4.6	-2.8	24.6	11.7	18.5
14	10.6	-3.1	2.9	1.1	-3.5	-1.4	2.1	-5.7	-2.7	23.3	11.7	17.8
15	9.2	-2.4	2.2	5.7	-5.3	.5	11.0	-6.8	1.8	24.2	11.3	17.8
16	9.9	-2.8	2.5	6.4	-2.1	2.3	14.3	1.8	8.7	23.8	13.9	18.1
17	10.6	-1.0	4.3	6.8	-6.0	-2.1	8.8	-.7	5.2	21.7	11.3	16.3
18	9.5	-2.4	3.0	6.8	-8.6	-3.4	6.0	-2.4	1.6	22.9	13.9	19.0
19	8.1	-2.4	2.8	4.9	-9.8	-2.9	4.2	-7.9	-1.8	21.7	14.3	18.5
20	8.1	3.9	5.2	11.3	-4.2	2.8	2.1	-3.8	-.6	20.1	4.6	12.0
21	6.4	1.4	3.8	13.1	.0	5.5	5.3	-4.6	.3	23.8	4.2	14.0
22	7.1	-7.1	2.4	12.8	2.5	8.0	8.1	-4.9	1.8	20.5	11.0	16.2
23	3.2	-12.5	-4.4	7.4	-5.7	1.9	16.5	.4	8.1	15.4	3.5	11.6
24	5.3	-.3	2.7	-5.3	-9.4	-6.9	20.5	4.9	13.0	14.6	1.4	7.3
25	4.2	-3.1	.8	.0	-8.3	-4.5	13.1	3.5	9.4	12.4	1.8	5.1
26	-2.1	-10.5	-6.3	3.5	-8.3	-2.6	15.0	1.1	8.3	6.4	.7	3.4
27	-5.7	-12.1	-9.5	9.2	-4.9	2.1	18.1	2.5	10.1	13.5	.4	7.7
28	-4.6	-14.5	-9.3	9.5	-.3	5.1	2.5	-6.8	-1.9	16.9	5.7	10.5
29	-3.8	-10.1	-7.3	6.0	-1.0	2.1	10.6	-7.9	1.1	20.5	3.9	13.2
30	---	---	---	7.4	-2.8	1.5	14.6	1.1	7.9	18.1	7.4	13.9
31	---	---	---	11.3	-1.7	4.6	---	---	---	16.9	4.2	11.5
MONTH	11.3	-17.4	-.5	13.9	-12.5	.6	20.5	-7.9	4.4	24.6	.4	13.2
	JUNE			JULY			AUGUST			SEPTEMBER		
1	18.9	5.3	11.8	26.0	10.6	18.2	26.0	15.4	20.3	24.6	13.1	18.6
2	20.5	5.3	12.6	26.0	14.6	19.3	24.2	13.5	19.0	22.1	14.6	17.5
3	22.9	7.4	15.0	27.3	15.8	21.0	21.7	13.5	17.9	26.4	12.8	18.6
4	23.3	9.9	17.0	29.2	16.1	21.1	23.3	12.4	18.2	24.6	13.1	18.6
5	---	---	---	25.5	16.9	20.3	26.4	9.2	18.4	18.9	11.3	14.7
6	---	---	---	28.2	14.3	20.6	26.0	14.3	19.9	15.4	7.8	10.7
7	25.1	9.9	17.3	27.3	16.5	21.8	25.5	10.6	18.2	17.7	6.4	11.2
8	25.5	12.4	19.0	23.3	12.4	17.5	22.9	15.0	18.2	22.1	7.1	13.8
9	24.6	12.8	18.9	20.5	11.7	15.0	22.9	12.8	17.6	23.8	10.2	15.5
10	25.5	13.5	19.9	24.6	9.9	17.4	25.5	11.0	17.8	23.3	13.5	17.8
11	23.8	13.5	18.5	26.4	14.3	19.7	28.7	13.1	19.8	18.9	3.5	13.8
12	21.7	10.6	16.9	26.0	13.5	19.9	28.7	16.9	22.1	16.9	9.2	12.2
13	22.1	10.2	15.7	24.6	13.5	19.1	29.7	15.4	22.4	14.3	8.1	10.3
14	18.1	9.2	12.6	26.9	12.1	19.8	27.8	17.7	22.2	13.1	3.5	8.2
15	13.5	7.1	9.6	26.9	13.1	19.7	26.9	16.1	20.5	16.1	3.5	9.0
16	23.8	6.4	14.9	23.8	12.4	17.1	25.5	12.1	18.5	17.3	5.7	11.8
17	24.6	11.3	18.6	24.2	11.7	16.0	25.1	14.3	18.2	9.2	1.4	4.2
18	25.5	11.3	18.5	21.3	12.8	17.2	20.5	12.4	16.5	4.9	-2.8	.3
19	27.3	11.3	19.4	26.0	13.5	19.6	25.5	12.4	18.3	9.9	-3.5	2.6
20	26.4	10.6	18.6	27.3	14.6	20.5	22.5	15.0	17.7	13.5	1.1	6.2
21	20.1	10.6	14.2	27.3	12.1	20.0	22.5	11.7	16.3	19.3	2.8	10.5
22	23.8	11.0	17.3	27.3	13.5	20.2	22.5	11.0	15.8	20.9	7.8	13.2
23	25.1	9.2	17.2	27.3	13.1	20.0	20.9	11.0	15.3	18.9	7.8	12.1
24	24.2	12.1	18.9	27.8	14.3	20.2	22.9	11.0	16.4	20.1	8.1	13.2
25	24.6	12.1	18.3	25.1	15.4	19.8	19.3	12.4	15.4	14.6	6.7	10.0
26	22.1	11.7	17.2	26.0	15.4	20.0	19.3	12.8	15.6	8.5	-2.1	4.9
27	18.1	6.4	12.9	26.9	15.8	21.2	21.3	11.7	15.3	7.8	-4.9	.6
28	18.1	9.5	12.2	24.2	12.1	18.2	23.8	12.8	17.9	15.8	-.7	6.7
29	23.8	8.5	16.0	18.9	11.3	14.4	26.0	13.5	19.3	19.7	2.8	10.3
30	23.8	14.6	18.6	24.6	10.2	16.8	24.2	11.0	16.9	18.5	7.8	12.7
31	---	---	---	26.4	12.4	19.2	24.6	10.6	17.0	---	---	---
MONTH	---	---	---	29.2	9.9	19.1	29.7	9.2	18.2	26.4	-4.9	11.0

## GUNNISON RIVER BASIN

**380102107402200 OURAY METEOROLOGICAL STATION AT OURAY, CO--Continued**

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.0	.3	.0	.3	.4	.0	.0	.0	.0	.0	.0	.0
2	.0	.0	.0	.1	.2	.0	.1	.0	.0	.0	.1	.0
3	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0
4	.2	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0
5	.0	.0	.0	.0	.0	.2	.2	.0	---	.0	.0	.1
6	.0	.0	.0	.0	.1	.4	.0	.0	---	.0	.0	.2
7	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0
9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0
10	.0	.6	.0	.0	.0	.0	.2	.0	.0	.1	.0	.0
11	.0	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1
12	.0	.0	.1	.0	.0	.1	.1	.0	.1	.0	.0	.2
13	.0	.0	.0	.0	.0	.0	.9	.0	.1	.0	.0	.2
14	.0	.0	.2	.0	.0	.1	.1	.0	.1	.0	.0	.7
15	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1
16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.1
17	.0	.0	.0	1.2	.0	.2	.2	.0	.0	.7	.0	.2
18	.0	.0	.0	.1	.0	.0	.3	.0	.0	.1	.0	.4
19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
20	.0	.0	.0	.0	.2	.0	.0	.0	.1	.0	.0	.0
21	.0	.0	.0	.0	.3	.0	.0	.0	.4	.0	.0	.0
22	.5	.0	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0
23	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.1	.0
24	.0	.0	.0	.0	.0	.8	.0	.0	.0	.0	.1	.0
25	.0	.0	.0	.1	.0	.2	.0	.4	.0	.0	.0	.1
26	.0	.5	.0	.0	.1	.0	.0	.1	.0	.0	.0	.2
27	.0	.1	.0	.0	.0	.0	.0	.0	.5	.0	.0	.1
28	.0	.0	.0	.0	.0	.0	.0	.0	.3	.2	.0	.0
29	.0	.1	.0	.0	.0	.4	.0	.0	.0	.3	.0	.0
30	.0	.0	.2	.0	---	.0	.0	.0	.0	.0	.0	.0
31	.0	---	.8	.5	---	.0	---	.0	---	.0	0.0	---
TOTAL	0.7	1.7	1.5	2.6	1.4	2.4	2.8	0.5	---	2.0	0.3	2.9

**380251107513000 WEST FORK DALLAS CREEK METEOROLOGICAL STATION NEAR RIDGWAY, CO**

LOCATION.--Lat 38°02'51", long 107°51'30", Ouray County, Hydrologic Unit 14020006, 5.2 mi north of Mears Peak.

PERIOD OF RECORD.--October 1992 to current year.

GAGE.--Weighing-bucket rain gage with satellite telemetry. Elevation of gage is 9,260 ft above sea level, from topographic map.

REMARKS.--Unpublished air-temperature and rainfall data for water year 1993 are available in district office. Daily record for air temperature is good. Daily record for accumulated rainfall is good.

## TEMPERATURE, AIR, (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	8.8	-2.1	1.8	4.2	-2.8	1.0	8.8	-6.4	-1.3	-7.1	-12.9	-9.5
2	11.3	-2.8	1.9	1.4	-10.5	-5.0	8.8	-5.3	.6	-8.6	-18.3	-13.6
3	15.0	-2.8	5.2	3.2	-12.1	-6.3	6.4	-9.0	-3.5	.4	-8.6	-3.4
4	9.5	-2.8	1.6	4.6	-9.0	-4.0	7.1	-4	3.9	.7	-4.6	-2.7
5	2.5	-7.1	-2.4	10.2	-10.5	-3.2	7.8	-1.4	3.6	-.3	-9.0	-3.7
6	12.1	-10.1	-1.2	7.1	-1.0	2.1	5.7	-6.0	.6	-3.5	-19.3	-10.0
7	13.5	-3.5	5.3	6.4	-3.5	.7	.4	-6.4	-2.7	6.4	-12.1	-6.7
8	13.1	-2.8	3.7	11.3	-6.0	1.3	-.3	-11.3	-6.2	9.2	-11.3	-4.2
9	11.7	-2.8	3.6	6.0	-7	3.8	.7	-9.0	-4.4	9.5	-8.6	-1.4
10	16.1	-2.1	4.4	4.7	-13.3	-6.4	5.3	-9.8	-4.9	3.9	-11.3	-2.5
11	20.5	-2.1	5.9	6.0	-13.3	-4.4	9.2	-8.6	-1.0	3.5	-12.1	-6.7
12	13.1	6.4	10.9	7.8	-1.7	3.5	5.7	.4	3.4	10.2	-12.1	-5.5
13	8.8	-3.8	1.3	8.1	-3.1	1.0	5.3	-2.4	1.4	7.8	-9.4	-4.5
14	14.6	-4.9	1.8	11.0	-4.9	-.5	-2.1	-10.5	-5.2	6.7	-10.9	-5.7
15	18.1	-2.8	4.3	11.7	-6.8	-.9	3.5	-12.9	-7.7	7.8	-10.1	-2.2
16	14.3	-2.1	4.6	10.6	-4.9	-.1	-.7	-11.3	-5.8	4.6	-4.6	.1
17	15.0	-1.7	3.9	9.5	-6.0	-1.3	-4.2	-14.5	-9.0	-.3	-14.5	-6.1
18	16.5	-2.4	5.2	10.2	-6.4	-1.4	-1.7	-15.3	-10.6	-6.0	-21.6	-14.1
19	9.5	-6.0	1.0	11.7	-4.9	-.5	-2.1	-17.0	-11.9	-4.6	-12.5	-7.0
20	13.5	-6.0	.7	11.0	-5.3	-.6	-6.0	-16.6	-11.7	-4.6	-18.8	-13.5
21	14.6	-3.5	4.7	9.9	-6.4	1.3	-7.9	-17.4	-12.6	-1.4	-15.7	-4.8
22	8.1	-8.6	-2.8	6.0	-4.2	.8	-8.6	-20.7	-15.2	-4.6	-11.7	-7.5
23	.4	-11.7	-6.2	6.4	-7.1	-1.8	-6.0	-23.1	-17.9	-8.6	-15.3	-12.7
24	9.2	-8.3	-2.2	11.3	-7.5	-1.6	-.3	-20.7	-15.2	-4.2	-12.5	-7.8
25	8.8	-7.1	-1.2	12.4	-4.6	1.4	.7	-17.9	-12.2	-3.1	-16.2	-7.1
26	11.0	-2.8	4.0	6.7	-9.8	-1.4	3.5	-16.2	-11.5	-10.5	-24.7	-18.2
27	9.5	-4.2	.9	-7.1	-15.7	-10.0	2.5	-16.6	-11.7	1.1	-24.7	-9.8
28	10.2	-3.5	2.7	-1.4	-16.2	-7.4	-.7	-15.3	-8.9	-3.8	-7.1	-5.6
29	12.4	-.7	5.7	1.8	-6.8	-2.9	-2.8	-16.2	-11.2	1.4	-6.0	-1.6
30	9.9	1.4	5.2	7.4	-7.1	-2.6	-1.4	-12.1	-5.4	1.8	-3.1	-.8
31	9.5	1.8	5.5	---	---	---	.4	-7.5	-3.5	-2.1	-4.2	-3.4
MONTH	20.5	-11.7	2.6	12.4	-16.2	-1.5	9.2	-23.1	-6.4	10.2	-24.7	-6.5

## GUNNISON RIVER BASIN

## 380251107513000 WEST FORK DALLAS CREEK METEOROLOGICAL STATION NEAR RIDGWAY, CO--Continued

TEMPERATURE, AIR, (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	-2.4	-7.5	-5.4	-2.1	-19.3	-11.3	12.8	-4.9	4.5	11.3	-2.4	4.8
2	-7.1	-15.7	-9.8	2.8	-15.3	-8.3	10.2	-1.0	5.1	13.9	-1.0	6.8
3	-2.8	-22.1	-15.2	7.8	-15.7	-4.9	4.6	-4.9	-1.0	15.0	5.7	10.0
4	3.5	-19.3	-7.9	3.2	-3.8	-.4	3.2	-5.7	-1.4	16.5	1.1	8.8
5	4.9	-3.8	-.2	.0	-3.5	-1.9	2.8	-5.7	-2.4	17.3	-1.7	7.4
6	7.1	-8.3	-2.3	-3.1	-15.7	-7.6	8.1	-8.3	-.7	17.3	1.4	8.4
7	6.0	-9.4	-3.0	2.5	-17.4	-7.4	10.6	-4.6	2.2	17.3	1.1	9.8
8	10.6	-7.1	-1.4	3.9	-14.1	-5.6	12.8	-2.8	3.5	17.3	4.9	11.5
9	11.0	-7.1	-1.6	8.8	-12.5	-3.1	15.8	-2.1	4.9	14.6	-.4	8.6
10	8.5	-6.0	-1.1	11.3	-7.9	.6	12.4	-1.4	3.7	14.6	-2.4	5.8
11	5.3	-7.5	-2.1	10.6	-4.6	1.8	4.9	-2.4	0	18.9	-1.4	8.6
12	7.4	-7.1	-2.4	5.7	-2.8	-.6	8.5	-6.4	.5	21.3	1.1	9.9
13	9.2	-8.3	-3.0	1.4	-9.0	-2.5	-1.4	-7.1	-4.6	21.3	1.1	11.4
14	10.2	-7.9	-1.7	-1.0	-9.0	-4.3	-.3	-9.0	-5.1	19.3	8.8	13.9
15	8.1	-7.9	-2.5	3.9	-6.8	-2.2	7.8	-10.5	-2.0	21.3	5.3	13.7
16	9.9	-10.9	-2.4	6.0	-6.0	-.4	11.0	-3.1	4.2	20.5	8.8	14.5
17	10.2	-6.8	.8	5.7	-11.7	-3.5	4.9	-2.8	2.2	18.1	7.8	12.4
18	4.6	-5.7	-.1	3.3	-14.9	-7.5	3.5	-5.7	-.4	19.7	9.9	14.8
19	5.3	-3.1	.8	2.1	-16.2	-7.5	-.4	-12.5	-5.5	18.9	10.2	14.4
20	5.3	.4	2.6	8.8	-12.1	-2.5	.7	-9.4	-3.8	16.1	1.8	8.8
21	4.6	1.4	2.8	9.9	-6.4	.4	3.2	-10.9	-3.8	20.5	-1.4	9.6
22	3.2	-10.5	-.8	9.9	-3.5	3.0	5.3	-10.5	-2.6	17.7	8.1	12.9
23	.0	-16.2	-8.5	3.5	-8.3	-1.4	13.9	-4.2	3.5	11.7	-.7	7.7
24	4.9	-6.0	-.9	-5.3	-12.1	-8.7	16.5	1.8	10.4	10.6	-2.1	3.8
25	2.1	-5.7	-2.3	-1.4	-11.3	-5.9	11.0	-1.4	6.2	6.4	-1.0	1.6
26	-5.7	-14.5	-10.1	1.1	-11.7	-6.1	12.4	-3.8	3.6	4.9	-2.1	1.0
27	-7.9	-19.7	-13.0	6.7	-14.1	-3.1	12.8	-2.4	5.5	12.1	-2.1	5.5
28	-7.9	-21.1	-14.3	7.8	-3.1	2.3	-2.4	-9.0	-5.5	12.4	-.4	7.4
29	-4.6	-17.0	-11.9	3.2	-3.1	-5	6.4	-10.9	-2.1	18.1	-1.0	9.5
30	---	---	---	5.7	-8.6	-1.8	11.0	-2.8	3.6	14.3	2.1	9.7
31	---	---	---	7.8	-6.4	.5	---	---	---	14.3	-2.1	6.7
MONTH	11.0	-22.1	-4.0	11.3	-19.3	-3.2	16.5	-12.5	.8	21.3	-2.4	9.0
	JUNE			JULY			AUGUST			SEPTEMBER		
1	15.0	-.3	7.1	22.1	3.9	12.4	23.3	6.7	14.5	20.9	4.2	11.8
2	18.1	-1.4	7.8	20.5	6.0	12.4	20.9	7.8	12.9	20.1	6.7	12.2
3	19.3	1.4	9.9	21.7	6.0	14.3	18.1	8.8	12.9	21.3	5.3	12.0
4	--	--	--	25.1	8.1	14.9	19.3	6.7	13.9	21.7	5.7	12.4
5	22.1	4.2	13.5	21.7	7.1	14.1	22.1	3.2	13.1	15.8	6.4	9.7
6	20.9	5.3	12.7	24.6	7.1	15.3	22.1	7.8	14.7	12.4	2.8	6.9
7	21.7	2.8	11.9	23.3	8.1	15.1	19.7	3.5	11.3	13.1	1.1	6.0
8	21.3	3.9	12.4	20.1	7.1	13.0	18.5	4.6	10.2	18.1	-.3	7.5
9	20.1	4.9	12.3	16.5	7.8	11.7	19.7	4.2	10.9	18.9	2.5	8.9
10	22.5	6.7	13.8	21.3	7.1	12.5	20.9	3.5	11.2	18.5	4.2	10.4
11	21.3	4.6	12.7	21.7	6.0	13.0	24.2	3.9	13.0	15.0	6.0	9.2
12	17.7	7.1	11.4	22.1	5.3	13.8	24.6	6.4	14.6	10.6	5.7	7.8
13	20.1	7.4	12.0	18.9	7.8	13.4	26.0	6.7	15.5	11.3	3.2	6.9
14	12.4	6.7	8.8	22.5	2.1	12.6	25.1	8.8	15.9	7.4	2.1	4.4
15	9.2	3.2	6.7	22.1	8.1	15.3	23.3	8.8	15.3	10.6	1.1	5.0
16	18.9	2.1	9.4	20.9	7.4	13.4	22.1	5.3	12.9	15.0	-.3	6.5
17	22.1	4.6	12.7	20.1	8.1	13.1	20.1	6.0	10.6	5.3	-.3	1.6
18	21.7	3.9	12.8	17.7	7.8	11.8	17.7	6.7	11.6	2.5	-5.7	-1.7
19	23.3	5.7	15.0	22.1	4.9	13.4	21.7	4.9	11.8	4.6	-6.8	-1.7
20	21.7	8.1	14.4	23.8	6.0	13.9	19.7	7.4	11.8	9.5	-2.4	1.9
21	16.1	.0	10.5	23.8	4.2	13.8	17.7	6.4	11.0	15.8	-2.1	5.1
22	19.3	6.0	14.2	24.2	4.9	14.2	19.3	4.6	9.8	15.0	3.9	8.5
23	21.3	2.8	11.7	24.2	5.7	14.0	16.1	4.6	10.0	13.1	2.5	7.4
24	21.7	3.5	12.6	24.2	4.9	14.0	16.5	5.7	11.1	16.5	2.1	7.9
25	20.5	4.2	12.6	21.7	6.7	13.8	16.1	7.4	10.4	11.3	3.5	6.5
26	20.5	6.0	12.0	22.5	7.8	14.2	15.0	7.4	9.6	5.3	-4.2	1.7
27	13.5	5.7	9.1	24.6	6.4	14.2	17.6	6.4	9.8	4.6	-9.0	-2.8
28	12.8	3.5	7.7	18.5	8.5	12.6	16.9	6.0	10.6	13.1	-4.2	2.3
29	20.1	1.8	10.3	16.5	8.1	11.7	22.5	5.7	12.5	17.7	-2.8	5.2
30	19.7	6.7	12.2	20.1	6.4	12.1	20.5	3.2	10.5	15.0	-1.4	5.6
31	---	---	---	24.2	5.7	13.9	20.1	3.5	10.8	---	---	---
MONTH	---	---	---	25.1	2.1	13.5	26.0	3.2	12.1	21.7	-9.0	6.2

## 380251107513000 WEST FORK DALLAS CREEK METEOROLOGICAL STATION NEAR RIDGWAY, CO--Continued

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.0	.5	.0	.1	.5	.0	.0	.0	.0	.0	.0	.0
2	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.6	.0
3	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	.0
4	.1	.0	.0	.0	.0	.0	.2	.0	--	.1	.0	.0
5	.0	.0	.0	.0	.0	.3	.2	.0	.0	.0	.0	.4
6	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.3
7	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.1	.0
9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0
10	.0	.8	.0	.0	.0	.0	.1	.0	.0	.1	.0	.0
11	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.3
12	.0	.0	.1	.0	.0	.0	.0	.0	.1	.0	.0	.3
13	.0	.0	.1	.0	.0	.1	.9	.0	.1	.0	.0	.3
14	.0	.0	.4	.0	.0	.1	.0	.0	.4	.0	.0	.9
15	.0	.0	.0	.0	.0	.0	.0	.0	.1	.2	.0	.0
16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
17	.0	.0	.0	1.2	.0	.0	.2	.0	.0	.5	.0	.2
18	.0	.0	.0	.2	.0	.0	.4	.0	.0	.0	.3	.1
19	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.5
20	.0	.0	.1	.0	.1	.0	.0	.0	.3	.0	.1	.1
21	.0	.0	.1	.0	.1	.0	.0	.0	.4	.0	.1	.0
22	.2	.0	.0	.2	.1	.0	.0	.0	.0	.0	.1	.0
23	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	.0
24	.0	.0	.0	.0	.0	.4	.0	.1	.0	.0	.0	.0
25	.0	.0	.0	.1	.0	.2	.0	.3	.0	.0	.2	.1
26	.0	.7	.0	.0	.3	.0	.0	.0	.1	.0	.2	.1
27	.0	.1	.0	.0	.0	.0	.0	.0	.6	.0	.6	.0
28	.0	.0	.0	.1	.1	.0	.0	.0	.6	.2	.1	.0
29	.0	.0	.0	.0	.1	.0	.0	.0	.0	.4	.0	.0
30	.0	.0	.0	.2	--	.0	.0	.0	.0	.0	.0	.0
31	.0	---	.6	.5	---	.0	---	.0	---	.0	.0	---
TOTAL	0.3	2.1	1.6	2.9	1.5	1.5	2.3	0.4	---	2.0	2.6	3.8

**380324107444500 WHITEHOUSE CREEK METEOROLOGICAL STATION NEAR OURAY, CO**

LOCATION.--Lat 38°03'24", long 107°44'45", in NW<sup>1/4</sup>NW<sup>1/4</sup> sec.21, T.44 N, R.8 W., Ouray County, Hydrologic Unit 14020006, 3.0 mi north of Whitehouse Mountain (elevation 13,470 ft), and 4.7 mi northwest of Ouray.

PERIOD OF RECORD.--October 1992 to current year.

GAGE.--Weighing-bucket rain gage with satellite telemetry. Elevation of gage is 9,480 ft above sea level, from topographic map.

REMARKS.--Unpublished air-temperature and rainfall data for water year 1993 are available in district office.

## TEMPERATURE, AIR, (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	8.5	-1.4	2.5	6.0	-2.4	1.4	7.4	-4.6	-1.4	-7.9	-13.3	-10.0
2	11.3	-1.7	2.9	1.4	-9.8	-4.9	8.5	-6.0	-1.7	-6.0	-17.4	-12.7
3	13.9	-1.4	5.8	4.2	-11.3	-5.4	7.1	-8.3	-3.3	.7	-8.3	-3.5
4	9.9	-3.1	1.3	4.9	-8.3	-3.4	8.8	-2.8	2.7	1.4	-7.9	-3.1
5	2.1	-6.4	-2.8	8.5	-8.6	-2.2	8.5	-.3	3.6	-1.4	-9.8	-4.7
6	11.7	-7.1	.7	4.2	-5.3	-.5	4.9	-6.0	.5	-2.8	-18.3	-9.7
7	13.5	-1.4	5.4	7.4	-3.1	.7	-1.4	-6.0	-3.0	8.8	-10.5	-5.3
8	12.8	-1.7	4.3	11.3	-4.9	1.0	.0	-11.3	-5.7	11.0	-7.5	-2.6
9	13.9	-.7	4.5	6.4	-1.7	3.0	1.4	-9.4	-5.2	9.9	-6.4	-1.3
10	15.4	-.3	5.8	.4	-13.7	-7.1	5.3	-9.4	-4.1	3.5	-10.5	-3.2
11	20.5	1.1	7.7	9.5	-13.7	-2.8	8.5	-7.5	-1.2	4.6	-11.3	-5.7
12	14.3	2.8	8.9	8.5	-3.1	2.1	7.4	-1.0	2.5	12.1	-8.6	-2.3
13	9.2	-3.1	1.9	9.2	-1.4	2.2	7.4	-3.1	1.7	9.2	-7.1	-2.2
14	14.6	-3.1	3.6	11.3	-3.8	.7	-.3	-10.9	-5.2	8.5	-7.9	-3.5
15	18.1	-.7	6.1	12.1	-4.9	.5	.7	-12.1	-7.6	8.5	-7.1	-1.7
16	15.8	.7	5.4	11.0	-3.5	.8	.7	-10.5	-6.2	7.1	-3.5	.8
17	15.0	-.7	5.3	9.9	-4.6	-.3	-4.6	-13.3	-9.2	.0	-14.5	-6.3
18	17.3	-.7	6.2	11.3	-4.9	.0	-.7	-13.7	-9.9	-6.0	-21.6	-13.8
19	9.2	-4.2	2.3	12.8	-3.1	.9	-1.7	-15.3	-11.3	-3.5	-12.1	-6.7
20	14.6	-4.6	2.4	11.3	-3.5	.8	-6.4	-15.3	-11.4	-4.9	-16.6	-11.6
21	14.6	-1.7	6.2	9.9	-4.6	.2	-7.9	-17.0	-12.3	-1.4	-14.5	-5.8
22	8.5	-9.4	-2.6	7.4	-4.2	.4	-9.8	-19.7	-14.5	-3.8	-12.5	-7.5
23	1.8	-12.1	-5.8	6.4	-5.7	-.9	-5.7	-20.7	-16.0	-6.4	-14.9	-12.2
24	8.8	-7.9	-1.7	12.1	-6.0	-.6	-1.0	-17.4	-12.5	-3.5	-13.3	-7.8
25	9.2	-6.4	-.5	13.1	-3.5	1.7	.7	-14.9	-10.2	-3.1	-16.6	-6.9
26	11.0	-3.1	3.7	6.7	-9.8	-.8	3.2	-13.7	-9.2	-11.7	-23.6	-18.0
27	10.6	-3.5	2.0	-7.1	-16.2	-10.3	4.6	-13.3	-9.1	.4	-23.6	-9.0
28	11.7	-2.4	2.9	-2.4	-16.6	-7.9	1.4	-12.1	-7.2	-3.5	-12.1	-6.5
29	13.1	.0	5.3	1.8	-6.0	-2.9	-3.1	-15.3	-10.1	2.8	-11.3	-2.8
30	11.3	.4	4.9	5.3	-6.0	-1.8	-4.2	-10.5	-6.4	2.5	-3.5	-.4
31	11.7	2.1	6.0	---	---	---	.0	-7.9	-4.3	-.3	-4.6	-3.3
MONTH	20.5	-12.1	3.2	13.1	-16.6	-1.2	8.8	-20.7	-6.0	12.1	-23.6	-6.1

## 380324107444500 WHITEHOUSE CREEK METEOROLOGICAL STATION NEAR OURAY, CO--Continued

TEMPERATURE, AIR, (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	-3.1	-8.6	-6.0	-1.4	-17.4	-9.8	12.1	-4.2	4.1	12.4	-.7	5.3
2	-7.9	-16.6	-10.7	3.2	-14.1	-6.9	10.6	-1.4	5.0	14.3	.7	7.9
3	-3.5	-22.6	-14.1	7.1	-12.5	-3.6	2.8	-5.3	-1.1	15.0	4.2	9.9
4	4.2	-16.6	-7.2	3.5	-4.6	-.5	2.5	-5.7	-1.8	16.5	1.1	8.3
5	6.7	-3.8	.1	2.1	-5.3	-1.5	4.9	-5.7	-1.9	16.9	-.3	8.2
6	6.4	-6.8	-1.6	-4.6	-15.3	-8.1	9.2	-7.1	.1	16.5	1.8	8.8
7	6.4	-7.9	-2.0	3.5	-16.6	-6.7	---	---	---	17.3	1.1	10.1
8	12.4	-5.3	.3	4.9	-12.1	-4.5	13.5	-1.7	4.7	16.9	2.8	11.7
9	12.4	-5.7	-.1	9.9	-10.1	-1.3	16.5	-1.4	6.1	15.0	.7	8.2
10	10.2	-4.6	-.2	12.4	-4.9	1.8	12.4	-.3	4.7	15.8	-1.0	6.6
11	6.7	-6.0	-1.2	9.5	-3.8	2.4	4.2	-2.1	-.3	18.9	.7	9.5
12	8.5	-6.0	-.9	6.7	-4.6	-.8	7.4	-6.0	1.0	22.1	2.8	11.1
13	10.2	-6.4	-1.5	1.1	-7.9	-3.0	-1.4	-7.5	-4.9	21.3	3.2	13.1
14	9.9	-6.4	.0	-1.4	-8.3	-4.2	.7	-9.8	-5.3	20.5	6.0	14.2
15	9.5	-6.8	-1.0	4.2	-7.5	-1.8	8.8	-10.5	-1.1	20.5	6.0	13.3
16	10.6	-8.3	-1.3	5.3	-6.4	-.4	12.1	-3.5	4.6	20.5	4.2	12.1
17	9.9	-5.7	1.3	9.4	-12.1	-3.6	5.7	-3.1	2.3	17.7	6.4	12.1
18	5.3	-6.0	-.4	2.9	-13.7	-6.9	4.6	-6.0	-.1	18.9	4.6	13.4
19	6.4	-6.8	.1	3.9	-14.9	-6.4	.7	-11.7	-5.2	19.3	8.8	14.6
20	6.7	1.4	3.5	8.8	-9.0	-1.1	1.1	-9.0	-4.0	15.8	2.1	8.4
21	4.9	1.4	3.1	10.6	-4.6	1.8	1.1	-10.9	-4.1	19.7	.7	9.9
22	3.2	-10.9	-1.1	12.1	-2.8	3.9	4.9	-9.8	-2.3	17.3	3.9	11.1
23	1.4	-15.7	-7.6	3.2	-9.8	-1.5	12.4	-3.1	4.2	11.3	-1.0	7.3
24	5.7	-7.1	.1	-5.3	-13.7	-9.5	16.1	.7	9.8	10.6	-1.0	4.7
25	2.8	-9.0	-3.4	-1.0	-10.9	-6.4	11.3	-.3	6.1	9.5	-.7	2.2
26	-6.4	-14.5	-10.1	1.4	-10.9	-5.4	11.3	-2.8	4.4	3.9	-1.7	.7
27	-8.3	-20.2	-13.7	7.4	-12.5	-2.6	12.8	-2.4	5.6	11.7	-2.1	5.1
28	-7.5	-20.7	-13.9	8.5	-6.4	1.8	-2.4	-9.8	-6.1	12.1	1.4	6.5
29	-5.7	-15.3	-11.1	3.9	-5.3	-1.0	6.4	-11.3	-2.2	17.3	.4	9.2
30	---	---	---	5.3	-8.3	-1.2	11.3	-2.4	4.3	14.3	3.2	10.2
31	---	---	---	8.5	-6.4	.4	---	---	---	13.1	.0	7.1
MONTH	12.4	-22.6	-3.5	12.4	-17.4	-2.7	---	---	---	22.1	-2.1	9.1
	JUNE			JULY			AUGUST			SEPTEMBER		
1	15.0	1.8	8.0	21.7	6.0	13.4	23.8	9.2	15.4	22.1	7.4	13.8
2	17.3	.7	8.6	20.9	8.5	13.7	18.9	9.5	13.4	22.1	8.8	13.6
3	18.5	3.2	10.8	22.1	8.8	15.2	20.1	9.5	14.0	22.9	7.4	13.4
4	19.3	4.9	12.3	21.7	9.9	14.9	18.5	9.2	13.6	19.7	8.5	12.8
5	---	---	---	20.1	10.6	15.0	22.5	5.3	13.4	16.1	8.5	11.2
6	20.1	6.0	13.2	24.2	9.2	14.6	23.3	7.1	14.3	13.5	4.2	7.5
7	21.3	5.3	12.9	23.3	9.5	15.4	21.7	6.4	12.9	14.3	2.8	7.2
8	21.3	6.0	13.3	19.3	8.8	13.3	19.7	7.4	12.4	17.7	2.5	9.0
9	20.1	7.4	12.4	16.9	8.5	12.0	19.3	7.1	11.8	19.7	4.6	10.6
10	20.9	8.5	14.0	20.9	7.1	13.3	21.7	6.0	12.8	18.9	6.0	11.7
11	20.1	7.1	12.7	21.7	8.5	13.7	22.9	7.4	14.8	14.6	6.0	9.7
12	16.5	8.5	11.8	22.1	8.5	14.4	25.5	9.2	16.4	11.7	6.4	8.3
13	17.7	7.4	11.7	18.9	9.5	14.2	24.6	9.9	16.9	11.7	3.5	7.2
14	11.7	6.4	8.9	22.9	7.4	14.6	24.2	11.3	16.9	8.5	1.1	4.4
15	9.2	3.5	6.6	22.1	8.5	15.3	21.7	10.2	15.5	10.6	1.4	5.4
16	19.3	2.8	10.4	19.3	8.5	13.4	22.9	7.4	14.3	16.5	.7	7.8
17	20.1	6.7	13.7	20.1	.9	12.3	20.9	8.5	12.2	6.0	-.7	1.8
18	22.1	6.0	13.4	18.5	8.5	12.4	17.7	8.5	11.9	2.8	-5.3	-1.9
19	23.3	6.0	15.0	22.1	7.4	13.6	21.7	6.7	13.1	6.0	-5.7	-.5
20	22.1	8.5	14.0	23.8	7.8	14.9	19.3	8.5	12.6	10.2	-1.0	2.8
21	16.9	7.4	11.9	23.8	7.1	14.9	17.7	7.4	11.6	16.9	-.7	6.7
22	18.5	6.7	13.9	23.8	8.5	15.4	18.5	6.7	11.0	16.5	4.2	10.1
23	19.7	4.6	12.3	23.3	8.5	14.9	16.5	6.4	10.7	14.6	3.5	7.9
24	21.3	4.9	13.3	24.2	8.5	14.8	18.5	6.7	11.9	17.7	3.5	8.9
25	19.7	5.3	12.6	21.7	9.2	14.0	16.9	8.5	11.2	11.7	4.6	7.0
26	20.5	7.4	12.7	22.1	9.5	14.9	16.5	9.2	11.2	6.4	-4.6	1.7
27	14.3	6.0	9.4	23.8	8.8	14.7	17.7	7.4	11.1	4.6	-8.6	-2.1
28	14.3	4.9	8.3	19.7	9.2	13.1	19.7	7.1	12.4	14.3	-2.4	3.6
29	19.3	3.5	10.9	16.5	8.5	11.9	22.5	8.5	14.1	18.1	-.3	6.3
30	18.9	8.5	13.0	21.7	7.8	13.3	20.1	6.0	12.4	17.3	1.4	7.5
31	---	---	---	23.3	8.5	14.4	20.9	6.0	12.4	---	---	---
MONTH	---	---	---	24.2	.9	14.1	25.5	5.3	13.2	22.9	-8.6	7.1

## GUNNISON RIVER BASIN

380324107444500 WHITEHOUSE CREEK METEOROLOGICAL STATION NEAR OURAY, CO--Continued

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.0	.3	.0	.3	.5	.0	.0	.0	.0	.0	.0	.0
2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.1	.0
3	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	.0	.0
4	.1	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0
5	.0	.0	.0	.0	.0	.2	.3	.0	---	.0	.0	.2
6	.0	.0	.0	.0	.0	.6	.0	.0	.0	.2	.0	.1
7	.0	.0	.2	.0	.0	.0	---	.0	.0	.0	.0	.0
8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0
9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.0
10	.0	.6	.0	.0	.0	.0	.1	.0	.0	.2	.0	.0
11	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.1
12	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.1
13	.0	.0	.2	.0	.0	.0	1.3	.0	.0	.0	.0	.3
14	.0	.0	.4	.0	.0	.1	.1	.0	.4	.0	.0	1.1
15	.0	.0	.0	.0	.0	.0	.0	.0	.2	.1	.0	.1
16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
17	.0	.0	.0	1.3	.0	.2	.3	.0	.0	.7	.0	.2
18	.0	.0	.0	.1	.0	.1	.2	.0	.0	.0	.0	.1
19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5
20	.0	.0	.0	.0	.0	.0	.1	.0	.2	.0	.0	.1
21	.0	.0	.0	.0	.1	.0	.0	.0	.4	.0	.1	.0
22	.3	.0	.0	.1	.1	.0	.0	.0	.1	.0	.1	.1
23	.1	.0	.0	.3	.0	.1	.0	.0	.0	.0	.3	.0
24	.0	.0	.0	.0	.0	.9	.0	.0	.0	.0	.0	.1
25	.0	.0	.0	.1	.0	.3	.0	.3	.0	.0	.1	.1
26	.0	.5	.0	.0	.2	.0	.0	.1	.1	.0	.0	.2
27	.0	.2	.0	.0	.0	.0	.0	.0	.4	.0	.2	.1
28	.0	.0	.0	.0	.0	.0	.0	.0	.5	.1	.0	.0
29	.0	.0	.0	.0	.1	.3	.0	.0	.0	.1	.0	.0
30	.0	.0	.1	.0	---	.0	.0	.0	.0	.0	.0	.0
31	.0	---	.9	.2	---	.0	---	.0	---	.0	0.0	---
TOTAL	0.5	1.6	1.9	2.4	1.2	2.8	---	0.4	---	1.9	1.0	3.6

**380436107411500 PORTLAND METEOROLOGICAL STATION NEAR OURAY, CO**

LOCATION.--Lat 38°04'36", long 107°41'15", in SE<sup>1/4</sup>/NW<sup>1/4</sup> sec.12, T.44 N, R.8 W., Ouray County, Hydrologic Unit 14020006, 4 mi north of Ouray, and 8.6 mi east of Black Lake.

PERIOD OF RECORD.--May 1992 to current year.

GAGE.--Weighing-bucket rain gage with satellite telemetry. Elevation of gage is 8,080 ft above sea level, from topographic map.

REMARKS.--Unpublished air-temperature and rainfall data for water years 1992 and 1993 are available in district office. Daily record for air temperature is good. Daily record for accumulated rainfall is good.

TEMPERATURE, AIR (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	12.8	2.1	6.8	8.8	.4	4.1	13.1	3.9	7.6	-5.3	-10.1	-7.4
2	13.5	2.1	7.0	3.2	-5.3	-1.8	10.2	1.1	5.7	-6.4	-14.1	-10.9
3	18.5	3.2	10.2	5.3	-6.0	-1.0	7.8	-1.0	2.9	2.5	-7.5	-1.7
4	13.1	.0	4.3	7.4	-2.4	1.6	9.5	3.9	6.8	4.9	-2.8	.2
5	5.7	-3.1	.7	11.0	-1.7	3.7	11.0	2.5	6.9	.4	-6.8	-1.9
6	13.9	-4.9	3.7	8.1	.7	4.2	8.5	-.3	4.6	-1.7	-12.5	-6.1
7	16.9	3.9	10.6	9.2	1.1	4.7	2.1	-1.4	.0	4.6	-6.0	-1.4
8	15.4	2.5	8.8	13.9	1.4	6.7	2.5	-6.4	-1.7	11.3	-.3	3.2
9	16.5	4.9	10.0	11.0	3.9	7.5	3.9	-3.1	-.1	12.8	.4	5.3
10	20.5	6.7	11.9	3.9	-9.0	-4.3	8.1	-3.1	2.3	6.0	-4.9	.1
11	22.1	8.5	14.5	7.1	-9.4	-.5	9.9	.4	4.9	4.6	-6.0	-2.3
12	18.9	7.1	13.7	11.0	2.8	6.9	10.6	1.4	5.7	7.8	-4.9	1.0
13	10.6	-1.4	5.0	12.1	4.6	7.4	10.6	-1.4	5.1	9.5	.0	3.3
14	16.1	1.4	8.1	11.3	2.1	5.8	-.7	-6.4	-2.7	7.4	-2.1	2.0
15	20.5	6.7	12.2	13.5	.4	5.9	3.2	-7.9	-2.7	9.9	.4	3.9
16	19.7	8.1	12.2	13.1	2.1	6.5	2.8	-5.3	-1.1	9.2	1.8	4.6
17	18.1	7.1	11.5	10.6	1.1	4.9	-3.8	-7.1	-5.3	2.1	-11.7	-4.1
18	19.3	7.4	12.8	12.1	2.1	6.3	.0	-9.0	-5.2	-7.1	-17.0	-12.5
19	11.7	1.4	7.7	12.4	2.8	6.7	.0	-7.9	-4.9	-2.1	-8.6	-5.7
20	16.1	.0	7.4	12.4	3.2	6.3	-2.8	-9.0	-6.2	-2.8	-10.1	-7.0
21	17.7	5.7	11.4	12.1	2.8	6.6	-4.9	-10.5	-7.8	2.5	-7.5	-2.3
22	12.1	-6.8	-.1	9.9	.7	4.8	-5.7	-12.9	-9.8	-1.0	-9.4	-4.3
23	.7	-9.0	-3.9	8.5	.0	3.5	-5.7	-14.1	-10.4	-6.0	-12.1	-9.2
24	8.5	-4.2	1.9	13.5	.0	5.6	-1.4	-13.7	-8.0	.7	-8.6	-3.9
25	11.3	-.7	4.9	15.8	4.6	8.8	.0	-9.8	-5.3	1.4	-12.5	-3.4
MONTH	22.1	-9.0	8.0	15.8	-11.3	3.6	13.1	-14.1	-1.3	12.8	-17.0	-2.6

## GUNNISON RIVER BASIN

## 380436107411500 PORTLAND METEOROLOGICAL STATION NEAR OURAY, CO--Continued

TEMPERATURE, AIR (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	-1.4	-7.1	-4.1	-1.0	-12.1	-6.0	16.5	3.9	9.9	16.1	5.3	10.3
2	-4.2	-11.3	-7.8	3.9	-6.8	-1.7	15.8	1.1	9.0	18.5	6.4	12.7
3	-4.9	-16.6	-10.3	8.8	-3.5	2.2	5.7	-1.0	2.3	20.5	10.6	14.7
4	3.9	-8.6	-2.3	7.1	.7	3.5	6.7	-1.7	1.9	20.9	9.5	14.5
5	5.7	-1.0	1.9	5.3	-2.8	1.3	7.4	-3.5	.7	21.3	7.1	14.4
6	7.1	-2.8	1.3	-2.8	-8.6	-4.9	12.4	-1.4	4.9	21.7	9.5	15.5
7	7.4	-1.4	2.3	4.2	-9.8	-2.4	12.8	1.8	7.4	22.5	9.5	15.9
8	9.2	-2.1	3.0	5.3	-4.9	.2	16.9	4.6	10.7	22.1	10.6	16.3
9	12.4	1.8	6.0	9.9	-2.8	3.2	19.7	7.4	12.9	19.3	6.7	13.2
10	9.5	-.3	4.3	14.3	2.1	7.5	17.3	2.5	10.7	18.9	4.2	11.6
11	5.7	-2.4	1.1	12.4	3.9	7.8	7.8	.0	2.3	22.9	8.5	15.6
12	7.4	-.3	2.6	7.8	-1.4	3.3	10.6	-.3	4.5	24.2	11.3	17.8
13	9.2	-.3	3.3	5.7	-3.5	1.3	1.4	-4.9	-2.8	24.6	13.9	19.4
14	10.6	-.3	4.3	1.4	-3.5	-1.2	3.5	-6.0	-2.1	23.3	15.0	18.6
15	8.8	-.3	4.1	8.1	-3.8	1.6	12.8	-4.2	3.4	25.5	13.5	19.1
16	10.6	-1.0	4.3	6.4	-1.7	2.6	16.1	4.9	10.2	25.1	12.4	18.1
17	11.0	-.4	5.8	1.1	-6.0	-2.3	9.2	-.7	5.9	22.9	10.2	16.2
18	9.2	-.3	3.3	1.8	-6.8	-2.9	8.5	-2.1	2.4	24.2	12.1	19.0
19	8.1	-.7	3.6	5.7	-7.9	-1.5	4.9	-6.4	-1.5	23.8	12.4	18.6
20	9.9	4.2	6.6	11.3	-2.4	4.1	3.5	-2.8	-.2	20.5	3.9	11.6
21	8.1	-.7	4.9	13.1	2.8	7.6	5.3	-5.7	-.2	24.2	4.6	14.2
22	7.1	-7.9	2.5	15.0	5.3	9.5	9.5	-3.5	2.7	22.5	10.2	15.9
23	3.2	-10.9	-4.0	6.7	-6.0	1.9	17.3	2.8	9.8	15.8	2.5	11.2
24	7.4	-1.0	3.5	-3.5	-9.4	-6.8	20.9	8.1	14.7	14.6	1.1	7.0
25	5.7	-3.1	1.0	.4	-9.0	-4.7	15.8	5.3	10.4	13.9	1.8	4.9
26	-2.1	-11.7	-6.7	3.5	-7.9	-2.2	16.1	3.2	9.7	7.1	.7	3.7
27	-6.0	-12.9	-10.3	8.8	-3.5	3.1	16.9	1.4	10.1	16.1	1.8	9.0
28	-3.5	-13.7	-9.1	11.0	1.4	6.1	1.4	-5.3	-2.3	16.9	5.7	10.8
29	-2.4	-11.3	-7.4	7.8	-1.4	2.4	11.3	-6.0	2.3	22.1	4.9	13.7
30	---	---	---	8.5	-3.1	2.4	15.8	4.2	9.7	18.5	9.2	14.4
31	---	---	---	12.1	.7	6.1	--	--	--	18.1	4.9	11.8
MONTH	12.4	-16.6	.3	15.0	-12.1	1.3	20.9	-6.4	5.3	25.5	.7	13.9
	JUNE			JULY			AUGUST			SEPTEMBER		
1	19.7	6.0	12.6	26.4	12.1	18.9	28.2	15.8	21.3	26.9	14.3	19.9
2	21.3	5.7	13.6	23.8	15.0	19.4	23.8	16.1	19.2	23.8	14.6	18.1
3	24.2	8.5	16.0	28.2	16.5	21.9	25.5	16.1	19.3	26.0	13.5	19.1
4	26.0	11.7	18.3	28.7	18.5	22.1	23.8	14.6	18.9	25.1	15.4	19.0
5	26.4	13.1	19.7	27.8	18.1	21.1	28.2	10.6	19.2	18.5	11.3	14.6
6	24.6	11.0	17.9	28.7	14.6	21.3	26.9	13.9	19.8	17.3	8.1	11.5
7	26.0	9.9	17.9	28.7	16.9	22.1	26.9	11.7	18.7	18.9	7.1	12.3
8	26.0	12.8	19.2	25.5	12.4	18.1	22.9	14.6	18.7	23.3	8.8	14.9
9	25.1	13.9	19.3	22.5	11.7	16.2	24.6	12.4	18.1	22.9	11.3	16.5
10	26.9	14.6	20.1	26.0	11.0	18.2	26.4	12.8	19.3	23.8	13.9	17.8
11	25.5	12.1	17.8	27.8	14.6	20.7	28.7	15.4	21.6	18.1	9.9	13.5
12	21.7	12.4	16.6	28.2	15.4	21.6	29.7	16.9	23.1	17.3	8.8	12.4
13	23.3	11.3	16.2	26.0	16.1	20.1	30.1	16.9	23.0	16.9	8.1	10.8
14	17.3	8.8	12.8	28.2	13.5	21.0	28.7	18.1	23.1	11.3	3.5	7.7
15	15.0	8.5	10.0	27.3	12.4	20.3	27.3	15.8	20.9	15.8	3.5	9.0
16	23.8	7.8	16.0	26.0	12.4	18.2	26.9	12.4	19.5	18.9	---	---
17	26.0	14.3	19.8	24.2	11.7	16.5	25.5	15.8	19.0	8.5	.7	4.3
18	26.0	13.1	19.7	23.3	14.3	18.1	22.1	10.2	16.1	2.8	-2.8	-.2
19	27.8	12.8	20.5	26.9	15.0	20.5	25.5	13.1	18.7	9.5	-2.8	2.8
20	27.3	10.2	19.4	29.2	15.0	22.2	25.1	14.3	18.0	13.5	.4	6.7
21	19.3	10.6	14.9	28.2	14.3	21.5	23.8	12.8	16.5	20.1	4.9	12.3
22	24.2	12.4	18.7	28.7	14.6	21.6	23.3	12.4	16.5	21.3	7.4	14.5
23	26.0	11.0	18.3	28.2	13.9	21.3	22.5	12.4	16.1	20.5	8.1	13.2
24	26.0	13.9	20.1	28.7	14.3	21.1	23.8	12.1	17.0	20.1	11.7	15.0
25	23.3	11.7	18.6	27.8	16.1	20.3	20.9	12.4	15.6	14.6	7.4	10.9
26	24.6	9.9	17.8	27.3	14.6	20.8	20.5	13.1	15.6	9.2	-2.4	5.2
27	16.9	9.9	12.8	28.7	15.0	21.0	22.1	12.4	16.1	7.8	-5.3	1.0
28	18.9	8.8	12.9	24.2	12.1	18.0	24.6	13.1	18.5	15.8	.4	7.4
29	24.2	9.2	16.8	20.9	11.3	14.5	26.9	14.6	20.1	19.3	4.6	11.3
30	24.2	15.8	18.5	25.5	11.7	18.2	24.2	12.1	18.0	19.3	9.9	13.8
31	---	---	---	27.8	15.0	20.9	25.1	12.4	18.3	---	---	---
MONTH	27.8	5.7	17.1	29.2	11.0	19.9	30.1	10.2	18.8	26.9	---	---

## 380436107411500 PORTLAND METEOROLOGICAL STATION NEAR OURAY, CO--Continued

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.0	.4	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0
2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
3	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
4	.1	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
5	.0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.2
6	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.1
7	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0
9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0
10	.0	.3	.0	.0	.0	.0	.1	.0	.0	.2	.0	.0
11	.0	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
13	.0	.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.2
14	.0	.0	.3	.0	.0	.0	.1	.0	.2	.0	.0	.9
15	.0	.0	.0	.0	.0	.0	.0	.0	.1	.2	.0	.1
16	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1
17	.0	.0	.0	.9	.0	.1	.1	.0	.0	.4	.0	.1
18	.0	.0	.0	.1	.0	.0	.1	.0	.0	.1	.2	.2
19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3
20	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1
21	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0
22	.3	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.0
23	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	.0
24	.0	.0	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0
25	.0	.0	.0	.0	.0	.2	.0	.4	.0	.0	.2	.1
26	.0	.3	.0	.0	.1	.0	.0	.1	.1	.0	.1	.1
27	.0	.1	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0
28	.0	.0	.0	.0	.0	.0	.0	.0	.4	.3	.0	.0
29	.0	.0	.0	.0	.0	.3	.0	.0	.0	.3	.0	.0
30	.0	.0	.1	.0	---	.0	.0	.0	.0	.0	.0	.0
31	.0	---	.7	.1	---	.0	---	.0	---	.0	---	---
TOTAL	0.4	1.2	1.2	1.5	0.7	1.8	2.0	0.5	1.6	1.8	0.7	2.6

WTR YR 1996 TOTAL 16.0

**380844107512200 PLEASANT VALLEY METEOROLOGICAL STATION NEAR RIDGWAY, CO**

LOCATION.--Lat 38°08'44", long 107°51'22", in SE<sup>1/4</sup>SE<sup>1/4</sup> sec.16, T.45 N, R.9 W., Ouray County, Hydrologic Unit 14020006, 5.3 mi west of Ridgway.

PERIOD OF RECORD.--October 1994 to current year.

GAGE.--Weighing-bucket rain gage with satellite telemetry. Elevation of gage is 7,530 ft above sea level, from topographic map.

REMARKS.--Daily record for air temperature is good. Daily record for accumulated rainfall is good.

## TEMPERATURE, AIR (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	13.9	.7	6.6	9.2	.4	4.7	13.9	-1.0	5.1	-3.5	-8.6	-5.5
2	14.3	-.7	6.7	4.2	-7.1	-1.3	11.0	-1.0	5.4	-6.0	-15.3	-11.2
3	17.7	.0	9.9	6.4	-9.8	-2.0	9.5	-4.2	2.3	2.5	-9.8	-2.6
4	14.6	1.4	6.2	7.8	-4.6	.8	12.4	1.4	7.8	4.9	-4.2	.6
5	6.0	-4.2	1.4	11.3	-4.6	2.3	11.3	2.5	6.9	3.2	-7.9	-1.0
6	15.4	-7.1	3.7	8.1	-2.1	3.3	9.2	-3.5	4.9	.0	-14.5	-6.5
7	17.7	-.7	9.1	10.2	-.7	4.9	1.4	-3.8	-.4	5.3	-9.4	-4.1
8	15.4	.4	8.7	14.3	-2.8	5.3	2.1	-7.5	-1.6	12.1	-7.9	-.2
9	16.9	.4	8.7	11.7	1.4	7.9	4.9	-4.9	.0	12.4	-4.2	2.4
10	20.5	1.4	10.5	4.6	-10.9	-2.4	8.8	-5.7	.6	7.8	-7.5	.3
11	22.5	2.1	12.6	8.1	-11.3	-1.2	11.3	-3.1	3.4	3.9	-9.4	-4.0
12	19.3	6.0	14.0	12.1	1.4	6.9	10.2	1.4	6.1	8.1	-8.6	-1.3
13	11.7	-1.0	5.2	13.1	2.1	5.9	10.6	-.7	6.0	11.0	-4.9	1.3
14	18.1	-3.1	6.7	14.3	-2.1	4.9	.0	-8.6	-2.3	8.5	-6.8	-.5
15	21.3	.4	10.1	15.4	-3.5	4.6	5.7	-11.3	-3.4	11.0	-5.3	2.4
16	19.7	3.2	10.1	13.9	-1.4	4.9	5.3	-6.4	-1.8	10.2	1.8	5.0
17	19.3	2.5	9.4	11.7	-2.8	3.1	-2.1	-8.6	-4.5	4.9	-10.9	-2.6
18	19.7	2.1	10.7	13.9	-2.4	4.4	2.5	-10.1	-4.7	-4.2	-17.4	-10.7
19	13.1	-2.8	6.8	15.0	-2.4	4.4	2.5	-10.5	-5.0	-1.0	-8.3	-4.0
20	16.9	-5.3	5.1	14.3	-3.1	4.3	1.1	-12.1	-6.0	-1.7	-13.7	-7.3
21	17.7	-1.4	10.5	13.5	-3.5	5.9	-1.7	-12.5	-7.7	2.1	-12.1	-2.9
22	12.1	-4.9	1.2	11.7	-1.4	4.5	-2.4	-14.5	-9.0	1.1	-7.9	-3.0
23	2.8	-9.0	-2.3	10.2	-3.5	2.3	-2.8	-17.0	-11.1	-5.3	-12.9	-8.5
24	11.0	-6.0	1.2	13.9	-4.9	3.2	.7	-16.2	-9.2	-.7	-8.6	-3.6
25	12.1	-3.8	4.0	16.9	-2.1	6.3	2.5	-14.5	-7.1	1.8	-11.7	-3.4
26	14.6	-.7	8.1	12.1	-5.7	3.5	4.6	-11.7	-5.7	-8.6	-17.4	-12.8
27	13.1	-.7	6.8	-2.1	-13.3	-6.7	4.2	-12.9	-5.6	1.8	-20.2	-8.0
28	15.0	-.7	7.4	1.8	-14.5	-4.1	5.7	-9.8	-4.4	.7	-8.3	-2.3
29	17.7	3.9	10.2	6.4	-2.8	1.1	1.4	-13.3	-5.8	5.3	-8.3	-.5
30	15.8	2.8	9.2	13.1	-3.5	3.9	.0	-6.4	-2.4	5.7	.0	2.5
31	14.6	2.8	9.7	---	---	---	1.8	-3.5	-.7	3.2	-1.7	-.1
MONTH	22.5	-9.0	7.4	16.9	-14.5	2.9	13.9	-17.0	-1.6	12.4	-20.2	-3.0

## 380844107512200 PLEASANT VALLEY METEOROLOGICAL STATION NEAR RIDGWAY, CO--Continued

TEMPERATURE, AIR (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	-.3	-6.4	-2.9	.0	-13.3	-6.2	16.5	-2.1	8.2	15.4	2.1	9.9
2	-3.8	-11.7	-6.9	4.9	-10.9	-2.2	14.6	2.8	9.3	18.5	3.5	12.3
3	-1.0	-21.1	-11.9	8.1	-6.0	1.6	8.1	-2.4	3.0	19.7	7.1	14.3
4	7.1	-16.2	-4.2	7.1	-.3	3.5	8.8	-2.1	2.7	20.9	4.6	13.4
5	9.9	-1.7	2.9	6.0	-2.1	2.7	8.1	-1.7	1.6	21.3	2.1	12.9
6	9.2	-4.6	.4	-1.0	-12.5	-4.0	12.4	-4.2	4.3	21.3	3.9	13.9
7	9.2	-5.7	.8	5.3	-14.1	-3.6	14.6	-1.4	6.8	22.1	4.6	14.6
8	11.7	-4.6	1.3	6.4	-7.9	-.5	17.3	1.1	9.6	20.9	8.1	16.7
9	14.3	-4.2	3.6	11.3	-6.0	2.3	19.7	2.1	10.9	18.5	4.2	14.0
10	11.7	-2.8	2.9	14.3	-2.1	5.9	16.9	3.9	8.8	19.3	1.4	10.8
11	9.5	-4.6	.8	12.4	-1.0	6.1	7.8	-.3	3.8	22.9	2.8	14.3
12	10.6	-4.6	1.4	8.8	-1.0	4.0	11.7	-2.4	4.7	25.5	6.0	16.3
13	11.0	-5.7	.9	8.1	-4.2	1.4	2.5	-4.9	-1.4	25.5	6.0	17.6
14	13.5	-5.7	2.5	3.5	-4.9	-.2	3.9	-6.4	-1.1	23.3	11.3	18.7
15	11.3	-4.6	2.3	8.1	-2.4	2.5	13.1	-6.8	2.9	24.2	10.6	18.3
16	11.3	-6.0	2.3	7.8	-2.8	3.5	15.0	-.3	9.0	22.9	12.4	18.7
17	14.6	-3.5	4.9	6.8	-5.7	-.2	11.0	-.0	7.2	21.7	11.3	16.4
18	9.5	-2.4	3.9	6.8	-9.0	-2.2	11.0	-1.0	3.6	22.5	10.2	18.4
19	9.2	-3.1	3.2	6.7	-10.9	-2.3	4.6	-7.5	-.8	22.5	13.9	18.8
20	9.9	4.9	7.2	12.1	-7.1	2.9	5.7	-6.8	.3	19.7	2.5	11.9
21	9.2	4.6	7.3	14.6	-2.1	6.4	7.1	-4.9	1.0	22.9	2.1	13.5
22	7.8	-5.7	2.9	15.0	-.0	8.0	9.5	-6.0	2.6	21.3	8.1	16.6
23	3.5	-12.9	-3.7	8.8	-4.9	3.3	16.9	-.7	9.4	16.1	1.8	12.2
24	8.1	-6.0	2.5	-2.8	-12.5	-6.1	20.5	6.0	15.0	16.1	.4	7.5
25	7.4	-3.1	2.1	2.5	-9.8	-5.0	16.5	2.5	10.8	11.3	1.4	5.9
26	.4	-11.3	-5.6	7.1	-8.6	-1.4	16.1	.0	8.9	9.5	1.4	5.6
27	-5.3	-15.3	-8.9	9.5	-7.5	1.9	16.5	2.5	11.0	15.8	3.9	9.8
28	-1.7	-16.6	-8.9	11.3	.0	6.3	3.2	-7.1	-1.3	16.9	4.2	11.2
29	-1.4	-11.7	-6.7	8.1	-1.4	3.2	10.2	-9.0	2.0	21.7	1.8	13.3
30	---	---	---	8.8	-2.4	2.7	15.4	1.1	9.4	18.9	5.7	15.1
31	---	---	---	12.4	-1.7	5.9	---	---	---	19.3	2.8	11.4
MONTH	14.6	-21.1	-.1	15.0	-14.1	1.3	20.5	-9.0	5.4	25.5	.4	13.7
	JUNE			JULY			AUGUST			SEPTEMBER		
1	20.1	3.9	12.2	26.9	10.6	18.9	27.3	11.3	19.8	26.9	9.5	18.4
2	21.7	1.8	12.8	27.3	11.0	19.0	24.6	12.4	17.7	24.6	11.7	18.0
3	23.3	4.2	14.6	27.8	12.1	20.7	24.2	13.1	18.9	26.0	11.3	18.3
4	---	---	---	28.7	15.8	22.2	22.9	12.8	18.6	26.9	10.6	18.2
5	26.4	8.8	19.2	26.9	14.3	20.6	26.0	7.4	17.8	19.7	11.3	14.5
6	24.6	10.2	17.8	28.7	11.7	20.8	25.5	13.1	19.8	15.4	6.7	10.9
7	25.5	6.4	16.7	27.8	12.1	20.5	25.1	8.8	17.5	18.5	5.3	11.7
8	26.0	8.1	17.7	25.1	11.7	18.8	24.6	9.5	17.1	22.5	4.2	13.4
9	24.2	8.8	17.3	23.8	11.7	16.3	23.3	10.2	17.1	23.8	6.7	14.6
10	26.4	11.0	19.4	25.5	10.6	18.2	26.0	10.6	18.1	23.8	9.9	17.0
11	25.5	8.1	18.0	27.8	9.9	19.2	27.8	8.8	19.2	19.3	9.2	14.3
12	22.9	12.1	17.3	26.9	10.6	19.7	29.2	12.4	21.1	19.3	8.8	12.1
13	23.3	12.1	17.1	23.8	13.9	19.8	30.6	12.1	21.3	17.3	7.4	11.5
14	20.5	10.2	13.8	27.3	12.1	20.2	28.7	13.1	22.0	14.3	4.9	8.7
15	16.1	6.0	10.9	26.0	12.8	19.7	26.4	13.5	20.4	15.8	4.9	9.5
16	23.8	4.9	14.5	25.5	11.3	18.7	26.0	8.8	18.1	18.9	4.6	11.8
17	24.6	8.5	17.9	25.5	12.1	17.8	25.5	11.0	17.2	9.5	1.8	5.0
18	24.6	9.2	17.7	24.2	11.7	17.4	22.9	9.2	15.9	4.2	-3.1	.3
19	27.3	8.1	18.9	27.8	10.2	19.6	25.5	9.9	18.3	9.2	-4.2	3.2
20	26.4	10.6	18.4	28.2	10.6	20.7	23.8	12.1	16.8	13.5	1.4	7.0
21	22.1	9.5	14.8	28.7	11.0	20.2	22.9	11.0	15.9	19.3	1.4	11.0
22	23.8	10.2	18.0	28.2	10.6	19.8	23.8	9.9	15.7	20.1	7.4	13.8
23	24.2	6.4	16.2	28.2	11.0	19.5	22.1	10.6	15.2	20.5	6.0	13.1
24	25.5	8.8	18.0	27.3	10.2	19.2	22.5	11.7	17.2	20.5	6.4	13.8
25	23.3	8.8	18.1	27.8	11.3	19.2	23.3	12.1	16.0	16.9	9.2	12.2
26	23.8	9.9	17.1	26.9	12.1	19.2	22.5	12.4	16.2	9.5	-1.0	6.0
27	16.9	8.8	12.3	28.2	10.6	19.9	23.8	11.0	15.8	8.8	-5.3	1.6
28	20.5	8.1	12.7	25.1	13.1	18.5	24.2	10.6	16.8	17.3	-1.4	6.9
29	24.2	6.4	16.1	20.5	10.6	15.2	26.4	10.2	18.3	20.9	1.1	10.4
30	25.1	12.4	17.4	25.5	8.8	16.9	24.6	8.1	16.8	20.5	4.2	12.2
31	---	---	---	27.8	9.5	19.6	26.0	8.5	16.8	---	---	---
MONTH	---	---	---	28.7	8.8	19.2	30.6	7.4	17.9	26.9	-5.3	11.3

## GUNNISON RIVER BASIN

**380844107512200 PLEASANT VALLEY METEOROLOGICAL STATION NEAR RIDGWAY, CO--Continued**

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.0	.5	.0	.1	.3	.0	.0	.0	.0	.0	.1	.0
2	.0	.0	.0	.0	.1	.0	.1	.0	.0	.1	.1	.0
3	.0	.0	.0	.0	.0	.0	.0	.0	--	.0	.0	.0
4	.0	.0	.0	.0	.0	.0	.0	.0	--	.0	.0	.0
5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
6	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.3
7	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0
9	.0	.0	.0	.0	.0	.0	.0	.1	.0	.4	.0	.0
10	.0	.2	.0	.0	.0	.0	.1	.0	.0	.1	.0	.0
11	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
12	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2
13	.0	.0	.0	.0	.0	.0	.3	.0	.0	.1	.0	.1
14	.0	.0	.1	.0	.0	.0	.0	.0	.3	.0	.0	.6
15	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0
16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.1
18	.0	.0	.0	.1	.0	.0	.1	.0	.0	.1	.1	.3
19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
20	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.1	.0
21	.0	.0	.0	.0	.1	.0	.0	.0	.2	.0	.0	.0
22	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1
24	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0
25	.0	.0	.0	.0	.0	.1	.0	.2	.0	.0	.0	.0
26	.0	.2	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0
27	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0
28	.0	.0	.0	.0	.0	.0	.0	.0	.4	.1	.1	.0
29	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	.0	.0
30	.0	.0	.0	.0	---	.0	.0	.0	.0	.0	.0	.0
31	.0	---	.2	.1	---	.0	---	.0	---	.0	0.0	---
TOTAL	0.1	0.9	0.6	0.7	0.5	0.7	0.7	0.3	---	1.3	0.6	2.1

**380916107452200 RIDGWAY METEOROLOGICAL STATION AT RIDGWAY, CO**

LOCATION.--Lat 38°09'16", long 107°45'22", in SW<sup>1/4</sup>NW<sup>1/4</sup> sec.16, T.45 N, R.8 W., Ouray County, Hydrologic Unit 14020006, 0.2 mi north of post office in Ridgway, and 0.3 mi north of State Highway 62.

PERIOD OF RECORD.--December 1992 to current year.

GAGE.--Weighing-bucket rain gage with satellite telemetry. Elevation of gage is 7,000 ft above sea level, from topographic map.

REMARKS.--Unpublished air-temperature and rainfall data for water year 1993 are available in district office. Daily record for air temperature is good. Daily record for accumulated rainfall is good.

## TEMPERATURE, AIR (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	15.0	-2.1	5.8	9.9	2.1	5.7	15.4	-7.5	1.5	-2.8	-8.3	-4.8
2	14.6	-3.5	5.5	5.3	-9.4	-1.4	12.4	-4.9	3.8	-6.8	-15.3	-11.2
3	19.3	-4.2	7.7	7.1	-12.5	-3.7	11.3	-8.6	-.3	3.2	-9.8	-3.9
4	16.5	2.5	7.3	8.8	-8.3	-1.3	12.1	.0	7.5	5.7	-11.3	-.8
5	7.8	-5.3	2.3	12.8	-10.5	-.4	12.4	-.3	7.2	3.5	-12.1	-4.0
6	15.0	-10.1	1.9	9.5	-6.0	1.0	9.9	-6.0	4.5	.4	-18.3	-7.3
7	18.9	-6.4	6.3	11.3	-7.1	3.3	2.5	-7.9	-2.0	5.3	-14.9	-8.0
8	16.1	-2.8	5.4	15.8	-8.6	1.7	3.5	-7.9	-1.1	7.4	-18.3	-8.1
9	18.1	-6.0	5.6	13.1	-6.0	5.4	6.0	-7.5	-.3	11.7	-14.5	-4.0
10	21.7	-4.9	7.0	6.7	-13.3	-3.1	10.2	-9.0	-1.6	2.8	-10.9	-2.7
11	23.3	-4.6	9.1	8.5	-14.1	-4.5	12.1	-9.0	1.5	2.8	-14.5	-7.4
12	20.1	-1.4	11.0	13.1	-5.7	3.8	11.3	.7	5.7	7.4	-14.9	-5.8
13	12.1	-4.2	4.7	13.5	-.7	5.3	12.8	-.7	6.9	10.2	-12.5	-4.0
14	17.3	-9.0	3.4	13.5	-4.9	2.6	1.1	-8.3	-1.8	9.2	-12.9	-4.4
15	21.7	-6.4	5.9	15.4	-7.1	1.5	3.5	-12.1	-5.9	7.4	-11.7	-2.9
16	20.1	-4.6	5.7	15.0	-7.5	2.2	4.9	-9.8	-3.2	9.5	-3.8	2.8
17	20.1	-4.2	6.5	12.1	-7.5	.6	-1.0	-9.0	-5.0	5.3	-9.8	-2.0
18	20.9	-5.3	7.3	13.9	-9.0	.3	2.1	-12.1	-5.9	-7.9	-20.2	-12.7
19	13.5	-6.8	3.8	14.3	-8.3	.3	2.1	-12.9	-6.6	-.3	-10.9	-4.7
20	16.5	-12.1	1.0	14.3	-9.0	.3	.7	-11.7	-6.2	-2.1	-18.8	-10.1
21	19.3	-8.3	6.9	14.3	-9.0	1.2	-2.4	-13.3	-7.3	3.5	-18.8	-7.7
22	14.6	-3.5	1.9	10.6	-5.3	3.0	-3.5	-15.3	-9.1	.0	-11.7	-5.0
23	3.2	-9.8	-2.4	10.6	-9.0	-.1	-2.4	-19.3	-12.1	-4.9	-10.5	-7.2
24	10.6	-7.9	.0	13.9	-10.5	-1.0	.0	-19.3	-11.1	1.8	-8.3	-2.7
25	13.5	-9.0	.8	17.3	-9.0	1.5	2.1	-18.8	-10.0	2.8	-10.9	-1.5
MONTH	23.3	-12.1	5.1	17.3	-15.3	.6	15.4	-19.3	-2.8	11.7	-26.3	-5.0

## GUNNISON RIVER BASIN

**380916107452200 RIDGWAY METEOROLOGICAL STATION AT RIDGWAY, CO--Continued**

TEMPERATURE, AIR (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## 380916107452200 RIDGWAY METEOROLOGICAL STATION, AT RIDGWAY, CO--Continued

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.0	.3	.0	.1	.3	.0	.0	.0	.0	.0	.0	.0
2	.0	.0	.0	.0	.2	.0	.1	.0	.0	.1	.4	.0
3	.1	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
4	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1
5	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1
6	.0	.0	.0	.0	.1	.3	.0	.0	.0	.0	.0	.2
7	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
8	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0
9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0
10	.0	.4	.0	.0	.0	.0	.1	.0	.0	.1	.0	.0
11	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	.0
13	.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	.1	.1
14	.0	.0	.2	.0	.0	.0	.0	.0	.2	.0	.1	.7
15	.0	.0	.0	.0	.0	.0	.0	.0	.4	.1	.0	.1
16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17	.0	.0	.0	.7	.0	.0	.0	.0	.0	.6	.0	.2
18	.0	.0	.0	.1	.0	.0	.1	.0	.0	.1	.0	.3
19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
20	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.1
21	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0
22	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	.1
24	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0
25	.0	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0
26	.0	.2	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
27	.0	.0	.0	.0	.0	.0	.0	.0	.2	.1	.0	.0
28	.0	.0	.0	.0	.0	.0	.0	.0	.3	.1	.0	.0
29	.0	.0	.0	.0	.1	.1	.0	.0	.0	.4	.0	.1
30	.0	.0	.1	.0	---	.0	.0	.0	.0	.0	.0	.0
31	.0	---	.4	.1	---	.0	---	.0	---	.0	.0	---
TOTAL	0.4	0.9	0.8	1.1	0.7	0.8	1.3	0.2	1.5	1.8	0.8	2.3

WTR YR 1996 TOTAL 12.6

**381001107412300 DRY CREEK METEOROLOGICAL STATION NEAR RIDGWAY, CO**

LOCATION.--Lat 38°10'01", long 107°41'23", in SE<sup>1/4</sup>NE<sup>1/4</sup> sec.12, T.45 N, R.8 W., Ouray County, Hydrologic Unit 14020006, 3.7 mi east of Ridgway.

PERIOD OF RECORD.--October 1994 to current year.

GAGE.--Weighing-bucket rain gage with satellite telemetry. Elevation of gage is 7,360 ft above sea level, from topographic map.

REMARKS.--Daily record for air temperature is good. Daily record for accumulated rainfall is good.

## TEMPERATURE, AIR (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	16.5	-.3	7.4	9.2	.7	5.2	16.9	-3.1	4.8	-2.8	-9.0	-5.5
2	16.5	-.7	7.3	5.7	-7.9	-1.2	13.1	-2.1	5.2	-3.5	-14.5	-10.5
3	19.3	-1.0	9.5	8.8	-10.5	-1.9	13.1	-5.7	1.9	2.5	-10.1	-3.3
4	15.4	1.1	6.5	9.9	-5.7	.9	11.3	1.1	7.5	6.0	-5.3	.3
5	8.8	-2.8	2.7	14.3	-6.8	2.2	13.1	2.8	7.6	2.5	-6.8	-1.6
6	16.9	-7.5	3.8	10.6	-3.8	2.8	12.1	-4.2	5.4	2.8	-15.7	-6.6
7	18.9	-1.4	9.1	11.7	-.7	5.0	.7	-5.3	-1.0	9.5	-12.1	-4.4
8	17.7	.0	9.1	16.5	-4.6	5.3	4.6	-6.8	-.7	8.5	-11.7	-3.0
9	18.5	-.7	8.1	12.1	1.8	7.4	7.4	-4.9	.4	---	---	---
10	22.9	.0	10.5	6.4	-11.7	-3.1	11.0	-7.1	.7	---	---	---
11	24.6	.7	12.0	12.4	-13.7	-1.8	12.8	-4.2	3.5	---	---	---
12	19.3	4.9	12.9	14.3	-.3	7.2	9.5	1.8	6.2	---	---	---
13	13.9	-1.7	6.0	15.8	2.5	7.4	12.1	-1.0	6.4	---	---	---
14	18.9	-4.9	6.4	15.4	-1.7	5.1	1.8	-9.0	-1.7	---	---	---
15	23.3	-1.7	9.7	17.7	-3.1	4.6	8.5	-12.1	-3.8	---	---	---
16	20.5	2.0	10.0	16.5	-2.4	4.9	6.7	-7.1	-1.6	---	---	---
17	20.9	.0	9.7	14.6	-4.2	3.3	-1.4	-8.6	-4.5	---	---	---
18	21.3	1.1	10.2	15.4	-4.2	3.8	4.2	-10.9	-4.8	---	---	---
19	15.4	-3.8	7.1	15.8	-3.1	4.3	3.9	-11.7	-5.6	---	---	---
20	19.7	-7.5	4.7	15.8	-3.8	4.0	1.8	-11.3	-5.8	---	---	---
21	19.3	-2.4	10.1	15.8	-4.2	4.9	---	---	---	---	---	---
22	13.9	-4.6	1.0	12.4	-2.4	4.3	-1.0	-13.7	-8.9	---	---	---
23	4.9	-9.4	-2.5	12.4	-5.3	2.6	.4	-17.9	-10.9	---	---	---
24	12.1	-6.0	1.8	17.3	-6.0	2.8	2.8	-17.0	-9.4	---	---	---
25	14.6	-5.3	3.7	17.7	-3.8	5.6	4.2	-16.6	-7.7	---	---	---
MONTH	24.6	-9.4	7.3	17.7	-16.6	2.8	---	---	---	---	---	---

## 381001107412300 DRY CREEK METEOROLOGICAL STATION NEAR RIDGEWAY, CO--Continued

TEMPERATURE, AIR (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	3.2	-13.7	-5.4	17.7	-2.8	8.4	17.3	2.1	9.9
2	.0	-14.9	-6.6	8.1	-11.3	-1.9	16.1	2.5	8.8	18.5	2.1	12.3
3	1.1	-20.7	-12.3	12.1	-7.9	2.1	10.6	-2.1	3.9	21.3	7.1	14.4
4	6.4	-17.9	-5.6	8.8	-7	3.7	9.2	-2.4	2.5	22.1	2.5	13.5
5	9.9	-2.1	2.2	7.4	-1.7	2.8	11.0	-2.8	2.3	22.1	1.1	13.2
6	10.6	-5.7	.4	1.8	-14.5	-3.1	15.0	-3.8	5.2	22.9	2.5	13.6
7	11.7	-7.1	.7	8.5	-17.0	-3.7	15.8	-1.7	7.3	23.3	3.5	14.6
8	14.3	-5.3	1.8	9.5	-9.0	-.2	20.5	1.1	10.7	22.5	11.0	17.4
9	16.5	-6.4	3.2	14.6	-7.5	2.7	20.5	.7	11.2	20.1	5.3	13.6
10	13.1	-3.5	2.6	17.3	-2.8	6.5	17.3	2.1	8.5	20.1	.7	11.2
11	8.8	-5.3	.3	14.6	-2.1	6.6	8.5	.7	3.5	24.6	3.9	14.9
12	12.4	-6.4	.8	10.2	-1.0	4.7	12.8	-1.4	5.5	26.4	5.7	16.6
13	13.5	-7.9	.8	7.1	-4.2	1.8	3.9	-3.5	.1	26.0	3.9	17.2
14	15.4	-8.3	2.3	4.2	-4.6	-.1	7.8	-4.2	.1	24.6	11.3	18.1
15	12.8	-6.4	2.4	9.5	-2.8	2.8	12.4	-8.6	2.9	26.0	7.8	18.3
16	14.6	-6.0	2.4	10.2	-1.0	4.0	16.9	-1.7	9.1	25.5	9.2	18.2
17	14.3	-5.3	4.0	---	---	---	11.7	.4	7.4	23.3	11.7	17.1
18	8.5	-2.4	3.7	6.8	-7.9	-1.2	11.7	-.3	4.8	25.1	8.1	18.8
19	7.8	-3.8	2.9	8.5	-10.5	-1.6	6.4	-6.4	.0	24.6	12.4	19.3
20	11.3	4.9	8.0	15.8	-8.3	3.3	4.6	-6.4	.4	21.3	2.5	12.5
21	9.9	.7	6.2	16.5	-3.5	6.5	7.8	-5.3	1.6	24.6	1.1	13.7
22	8.8	-6.0	3.4	15.0	.7	8.5	10.6	-7.1	2.7	22.9	6.7	16.1
23	7.1	-13.3	-4.1	8.8	-4.9	4.1	18.5	-1.7	9.3	16.5	2.8	12.7
24	11.3	-8.3	2.5	-2.1	-11.3	-5.8	22.9	5.7	15.1	16.9	.0	8.2
25	7.1	-4.9	2.4	4.2	-9.8	-3.8	17.3	1.1	11.3	13.5	2.5	6.6
26	.0	-11.7	-4.9	6.0	-8.3	-1.2	17.7	-1.0	9.6	10.2	2.1	5.7
27	-3.8	-12.9	-8.5	12.4	-7.9	2.6	18.1	.7	11.0	16.9	1.1	9.5
28	-1.7	-15.7	-8.2	13.5	.0	6.0	4.2	-6.4	-1.0	18.1	3.9	11.3
29	-1.7	-11.7	-6.8	9.2	-2.1	2.7	12.1	-10.9	2.0	22.5	1.8	13.6
30	---	---	---	10.2	-1.7	3.4	17.3	1.1	9.4	19.7	6.4	14.7
31	---	---	---	14.6	-1.7	6.2	---	---	---	20.1	1.8	12.1
MONTH	---	---	---	---	---	---	22.9	-10.9	5.8	26.4	.0	13.8
	JUNE			JULY			AUGUST			SEPTEMBER		
1	20.5	2.8	13.2	27.8	10.6	19.0	30.6	9.9	20.3	28.2	8.1	18.1
2	23.8	1.1	13.3	28.7	9.2	19.5	26.9	12.1	18.6	26.4	10.2	19.1
3	25.5	2.8	15.1	29.7	11.7	21.7	26.9	13.1	19.7	29.2	9.5	18.9
4	---	---	---	31.6	15.8	22.6	24.6	10.2	18.7	27.8	9.2	18.7
5	27.3	7.4	19.1	27.3	12.4	20.4	27.8	6.7	18.4	21.7	11.0	15.0
6	26.0	9.5	18.4	31.6	10.6	21.9	27.8	8.8	19.6	18.9	7.8	12.0
7	27.8	4.9	17.3	30.1	12.4	21.7	27.8	8.1	18.2	21.3	4.9	12.8
8	27.8	6.0	18.0	26.4	12.4	19.0	26.0	9.2	18.0	25.1	2.8	14.1
9	26.0	7.4	18.4	24.2	12.4	17.1	26.0	9.5	17.9	26.0	5.3	15.5
10	28.2	11.0	19.7	28.2	12.1	19.8	29.2	10.2	19.1	26.0	7.1	16.9
11	26.9	7.4	18.2	28.7	9.5	20.2	30.1	8.5	19.7	20.1	3.1	13.8
12	24.2	11.3	17.9	29.2	9.5	20.7	31.6	10.2	21.5	18.9	9.2	12.7
13	27.8	13.9	18.3	27.3	15.8	21.0	32.1	10.2	21.6	18.1	7.1	11.9
14	18.9	10.2	14.1	30.1	12.8	21.3	31.6	10.6	21.9	14.3	5.7	8.9
15	15.8	7.8	11.0	27.8	12.8	20.2	28.7	13.1	21.1	19.3	5.7	10.9
16	25.5	4.6	15.3	27.8	11.3	19.4	28.2	9.2	18.9	21.7	4.2	12.5
17	26.4	7.4	18.2	26.0	12.8	17.7	26.4	8.8	17.6	11.0	2.5	5.9
18	26.9	5.3	17.6	27.3	11.7	18.4	24.2	10.6	16.5	4.9	-1.7	.8
19	29.2	7.1	19.1	29.2	8.5	19.6	27.8	9.5	18.9	11.0	-4.2	3.8
20	26.4	9.5	18.8	29.7	9.2	20.9	25.1	11.7	18.0	16.1	1.1	7.8
21	20.9	9.9	15.1	30.6	8.8	20.4	23.8	9.9	16.8	21.7	.0	11.0
22	24.6	11.7	19.3	29.7	9.2	20.4	24.6	9.2	16.3	22.1	5.3	13.8
23	26.0	4.6	16.8	30.1	9.2	20.4	24.2	9.5	16.2	20.9	7.4	13.6
24	26.4	7.1	18.4	30.1	8.5	19.9	25.5	11.7	17.7	20.9	5.7	13.4
25	25.5	9.2	18.5	28.2	11.0	19.1	23.8	12.4	16.5	17.3	7.1	12.4
26	24.2	11.0	18.1	29.7	11.3	20.7	22.5	12.4	16.7	11.0	-.7	6.5
27	18.1	8.8	13.3	31.1	10.2	20.8	25.5	11.0	16.7	11.3	-2.8	2.9
28	22.1	8.5	13.5	25.5	13.9	18.6	26.0	9.5	17.9	18.5	-2.8	7.2
29	28.2	4.9	17.1	22.1	2.9	15.5	28.7	9.2	19.3	22.5	-.3	10.7
30	25.5	11.7	18.5	27.3	9.5	18.2	26.9	6.7	17.3	22.5	2.8	12.1
31	---	---	---	29.2	8.8	20.0	27.3	7.1	17.3	---	---	---
MONTH	---	---	---	31.6	2.9	19.9	32.1	6.7	18.5	29.2	-4.2	11.8

## GUNNISON RIVER BASIN

**381001107412300 DRY CREEK METEOROLOGICAL STATION NEAR RIDGWAY, CO--Continued**

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.0	.3	.0	.1	---	.0	.0	.0	.0	.1	.0	.0
2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.1	.0
3	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
4	.0	.0	.0	.0	.1	.0	.2	.0	---	.0	.0	.0
5	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1
6	.0	.0	.0	.0	.1	.4	.0	.0	.9	.0	.0	.2
7	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0
9	.0	.0	.0	---	.0	.0	.0	.0	.0	.1	.0	.0
10	.0	.2	.0	---	.0	.0	.1	.0	.0	.1	.0	.0
11	.0	.0	.0	---	.0	.0	.1	.0	.0	.0	.0	.1
12	.0	.0	.0	---	.0	.0	.1	.0	.0	.0	.0	.1
13	.0	.0	.0	---	.0	.0	.7	.0	.0	.0	.0	.1
14	.0	.0	.2	---	.0	.0	.1	.0	.2	.0	.0	.9
15	.0	.0	.0	---	.0	.0	.0	.0	.4	.1	.0	.2
16	.0	.0	.0	---	.0	.0	.0	.0	.0	.0	.0	.0
17	.0	.0	.0	---	.1	.0	.0	.0	.0	.4	.0	.1
18	.0	.0	.0	---	.0	.0	.0	.0	.0	.2	.0	.2
19	.0	.0	.0	---	.0	.0	.0	.0	.0	.0	.0	.2
20	.0	.0	.0	---	.0	.0	.0	.0	.2	.0	.0	.1
21	.0	.0	---	---	.0	.0	.0	.0	.1	.0	.0	.0
22	.4	.0	.0	---	.1	.0	.0	.0	.0	.0	.0	.0
23	.0	.0	.0	---	.0	.0	.0	.0	.0	.0	.0	.1
24	.0	.0	.0	---	.0	.3	.0	.0	.0	.0	.0	.0
25	.0	.0	.0	---	.0	.0	.0	.2	.0	.0	.0	.0
26	.0	.3	.0	---	.0	.0	.0	.1	.0	.1	.0	.0
27	.1	.0	.0	---	.0	.0	.0	.0	.1	.0	.0	.0
28	.0	.0	.0	---	.0	.0	.0	.0	.2	.1	.0	.0
29	.0	.0	.0	---	.1	.2	.0	.0	.0	.6	.0	.0
30	.0	.0	.1	---	---	.0	.0	.0	.0	.0	.0	.0
31	.0	---	.6	---	---	.0	---	.0	---	.0	.0	---
TOTAL	0.5	0.8	---	---	---	1.0	1.5	0.3	---	1.9	0.1	2.4

**381422107453000 RIDGWAY RESERVOIR METEOROLOGICAL STATION NEAR RIDGWAY, CO**

LOCATION.--Lat 38°14'22", long 107°45'30", in NE<sup>1/4</sup>SE<sup>1/4</sup> sec.17, T.46 N, R.8 W., Ouray County, Hydrologic Unit 14020006, 6.3 mi north of Ridgway, and 6.7 mi south of Colona.

PERIOD OF RECORD.--October 1991 to current year.

GAGE.--Weighing-bucket rain gage with satellite telemetry. Elevation of gage is 6,710 ft above sea level, from topographic map.

REMARKS.--Unpublished air-temperature and rainfall data for water years 1992 and 1993 are available in district office. Daily record for air temperature and accumulated rainfall is fair.

TEMPERATURE, AIR (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	15.4	1.4	7.8	11.0	1.8	6.6	16.5	-1.4	5.3	---	---	---
2	15.0	.4	6.9	4.2	-6.0	-1.2	13.9	-1.4	6.3	---	---	---
3	20.9	.0	10.5	7.4	-9.0	-1.3	12.8	-4.6	2.7	---	---	---
4	---	---	---	9.9	-4.6	1.4	12.8	2.5	9.4	---	---	---
5	---	---	---	14.6	-6.0	3.1	13.5	3.5	7.8	---	---	---
6	13.9	-6.0	3.9	11.0	-2.1	4.0	11.3	-2.8	5.2	---	---	---
7	---	---	---	13.1	-1.0	5.0	2.5	-3.5	-.5	---	---	---
8	---	---	---	15.8	-3.1	5.1	5.7	-5.7	-.5	---	---	---
9	19.7	-.3	9.8	13.5	-.0	8.5	8.1	-3.5	1.6	---	---	---
10	21.3	2.1	10.7	6.4	-9.0	-1.3	12.4	-6.0	1.3	---	---	---
11	23.3	.0	12.2	10.2	-10.5	-1.9	13.1	-4.9	3.2	---	---	---
12	20.9	4.9	13.9	15.4	-2.4	6.8	11.3	2.5	7.5	---	---	---
13	13.1	-1.0	6.5	15.8	3.2	7.7	12.8	.0	7.2	---	---	---
14	16.9	-2.8	6.3	13.9	-1.0	5.0	1.8	-6.0	-.5	---	---	---
15	20.9	-1.0	9.2	15.4	-2.8	4.4	6.4	-9.4	-2.6	---	---	---
16	21.7	2.1	10.4	14.6	-1.4	5.0	4.6	-6.4	-1.8	---	---	---
17	20.1	1.8	9.9	13.1	-3.5	3.3	1.1	-7.5	-3.6	---	---	---
18	22.5	1.8	11.4	13.9	-3.5	3.6	2.1	-10.1	-4.1	---	---	---
19	14.3	-1.0	6.9	13.9	-4.2	3.4	---	---	---	---	---	---
20	16.9	-5.7	4.6	13.5	-4.2	3.4	---	---	---	---	---	---
21	21.3	-1.7	9.9	13.9	-3.5	4.4	---	---	---	---	---	---
22	15.0	-3.5	1.9	11.0	-.7	4.7	---	---	---	---	---	---
23	3.5	-9.0	-1.8	11.7	-3.8	2.7	---	---	---	---	---	---
24	10.6	-4.9	1.6	14.3	-4.6	2.7	---	---	---	---	---	---
25	13.1	-4.6	3.3	18.5	-2.8	5.1	---	---	---	---	---	---
26	17.3	-1.0	8.8	12.8	-6.0	4.8	---	---	---	---	---	---
27	14.3	-.7	6.0	-1.7	-11.3	-4.6	---	---	---	---	---	---
28	15.0	.0	7.1	2.1	-12.5	-3.5	---	---	---	---	---	---
29	16.1	2.5	9.3	7.1	-1.7	1.9	---	---	---	---	---	---
30	18.1	4.6	11.4	17.3	-3.1	4.2	---	---	---	---	---	---
31	16.9	3.2	11.0	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	18.5	-12.5	3.1	---	---	---	---	---	---

## GUNNISON RIVER BASIN

381422107453000 RIDGWAY RESERVOIR METEOROLOGICAL STATION NEAR RIDGWAY, CO--Continued

TEMPERATURE, AIR (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	18.9	-1.7	8.6	17.7	1.4	10.7
2	---	---	---	---	---	---	17.3	-1.0	8.4	20.9	1.8	12.9
3	---	---	---	---	---	---	11.0	-.3	4.7	22.1	4.6	13.5
4	---	---	---	---	---	---	9.9	-1.0	3.6	22.9	2.8	13.6
5	---	---	---	---	---	---	10.2	-.3	3.3	23.3	2.1	13.3
6	---	---	---	---	---	---	14.3	-3.5	5.4	23.8	3.9	14.5
7	---	---	---	---	---	---	15.8	-1.0	7.7	24.6	5.3	15.1
8	---	---	---	---	---	---	20.1	1.8	10.5	23.3	9.2	16.6
9	---	---	---	---	---	---	21.3	2.5	12.1	20.9	6.0	13.6
10	---	---	---	---	---	---	18.9	3.9	9.2	21.3	1.8	11.6
11	---	---	---	---	---	---	7.1	.7	4.5	24.6	3.9	14.9
12	---	---	---	---	---	---	12.4	-.3	6.4	25.5	5.7	16.8
13	---	---	---	---	---	---	4.6	-1.7	.3	27.8	7.1	18.0
14	---	---	---	---	---	---	5.3	-2.8	.6	26.4	10.6	18.8
15	---	---	---	---	---	---	14.6	-5.7	4.0	26.4	7.8	18.3
16	---	---	---	---	---	---	18.1	-.7	10.3	26.4	8.1	17.5
17	---	---	---	---	---	---	12.8	2.5	8.5	24.2	11.3	18.6
18	---	---	---	---	---	---	12.8	1.1	6.0	26.4	8.1	19.6
19	---	---	---	---	---	---	6.0	-5.7	.7	25.5	12.4	20.6
20	---	---	---	---	---	---	7.1	-4.9	1.3	21.7	4.6	13.1
21	---	---	---	---	---	---	8.5	-4.9	2.3	24.6	2.5	13.9
22	---	---	---	---	---	---	11.7	-6.0	3.2	---	---	---
23	---	---	---	---	---	---	19.7	-1.4	9.8	---	---	---
24	---	---	---	---	---	---	22.9	3.9	14.7	16.9	1.4	8.8
25	---	---	---	---	---	---	18.1	3.9	12.0	---	---	---
26	---	---	---	---	---	---	18.9	-.3	10.0	---	---	---
27	---	---	---	---	---	---	19.7	3.2	11.8	---	---	---
28	---	---	---	---	---	---	4.6	-4.9	.2	---	---	---
29	---	---	---	---	---	---	11.7	-8.6	2.7	---	---	---
30	---	---	---	11.7	-1.4	4.3	16.9	.0	9.2	---	---	---
31	---	---	---	15.8	-.7	7.1	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	22.9	-8.6	6.4	---	---	---
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	28.2	9.5	19.5	---	---	---	28.7	8.8	19.6
2	---	---	---	27.8	11.3	21.3	---	---	---	25.1	12.4	20.2
3	---	---	---	30.1	11.7	22.4	---	---	---	28.2	9.9	19.1
4	---	---	---	31.1	16.5	24.2	---	---	---	27.8	9.9	19.4
5	---	---	---	28.2	14.6	21.4	---	---	---	23.3	10.2	16.3
6	25.1	9.2	18.2	30.6	12.1	22.3	---	---	---	18.1	8.8	12.2
7	27.3	6.4	17.3	30.1	12.4	22.1	---	---	---	20.5	5.7	12.7
8	28.7	8.1	19.0	26.9	13.9	20.2	---	---	---	24.2	4.6	14.2
9	26.9	9.9	20.1	24.6	13.1	17.8	---	---	---	25.5	7.1	16.0
10	28.7	11.7	20.4	27.3	12.8	20.4	---	---	---	26.9	8.8	17.7
11	28.2	8.5	19.3	30.1	11.3	21.2	---	---	---	20.5	5.4	14.5
12	24.2	12.8	19.1	29.2	11.3	21.1	---	---	---	21.3	9.9	14.1
13	26.0	13.5	19.8	27.8	15.4	22.1	---	---	---	19.7	9.2	13.5
14	20.1	11.3	15.7	29.2	11.3	21.0	---	---	---	15.8	7.4	10.3
15	16.5	8.1	12.1	28.2	12.1	20.5	---	---	---	18.5	7.4	11.6
16	26.0	5.7	15.4	28.2	13.1	20.3	---	---	---	22.9	4.9	12.9
17	27.8	9.2	19.2	26.9	14.3	19.2	---	---	---	11.0	3.9	6.9
18	28.2	9.2	19.0	25.5	14.3	19.2	---	---	---	6.0	.0	2.0
19	29.7	8.1	19.9	29.7	9.9	20.6	---	---	---	12.4	-2.1	5.4
20	29.2	8.8	19.3	31.1	10.2	21.8	---	---	---	15.0	3.2	8.5
21	22.5	11.0	16.6	29.7	9.9	20.4	---	---	---	22.5	1.8	11.7
22	26.4	11.3	20.2	---	---	---	---	---	---	23.3	6.4	15.1
23	27.3	6.0	18.0	---	---	---	---	---	---	22.1	7.8	13.7
24	28.2	8.1	19.3	---	---	---	---	---	---	22.9	6.7	14.3
25	26.4	8.1	18.8	---	---	---	---	---	---	18.5	7.4	14.1
26	25.1	12.1	18.8	---	---	---	---	---	---	11.3	.0	7.2
27	19.3	9.9	14.7	---	---	---	---	---	---	9.9	-2.4	3.0
28	20.5	8.8	14.1	---	---	---	---	---	---	16.9	-2.1	7.1
29	26.0	6.0	17.0	---	---	---	---	---	---	21.7	.4	10.6
30	26.4	13.5	19.5	---	---	---	---	---	---	22.1	4.6	12.2
31	---	---	---	---	---	---	27.3	8.1	17.5	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	28.7	-2.4	12.5

## 381422107453000 RIDGWAY RESERVOIR METEOROLOGICAL STATION, NEAR RIDGWAY, CO--Continued

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.0	.2	.0	---	---	---	.0	.0	---	.0	---	.0
2	.0	.0	.0	---	---	---	.1	.0	---	.0	---	.0
3	.2	.0	.0	---	---	---	.0	.0	---	.0	---	.0
4	---	.0	.0	---	---	---	.1	.0	---	.0	---	.0
5	---	.0	.0	---	---	---	.0	.0	---	.0	---	.2
6	.1	.0	.0	---	---	---	.0	.0	.0	.0	---	.4
7	.2	.0	.1	---	---	---	.0	.0	.0	.0	---	.0
8	.1	.0	.0	---	---	---	.0	.0	.0	.0	---	.0
9	.1	.0	.0	---	---	---	.0	.0	.0	.2	---	.0
10	.0	.1	.0	---	---	---	.1	.0	.1	.0	---	.0
11	.0	.0	.0	---	---	---	.3	.0	.0	.0	---	.0
12	.0	.0	.0	---	---	---	.0	.0	.0	.0	---	.0
13	.0	.0	.0	---	---	---	.5	.0	.0	.0	---	.0
14	.0	.0	.1	---	---	---	.0	.0	.2	.0	---	.6
15	.0	.0	.0	---	---	---	.0	.0	.3	.0	---	.1
16	.0	.0	.0	---	---	---	.0	.0	.0	.0	---	.0
17	.0	.0	.0	---	---	---	.0	.0	.0	.1	---	.1
18	.0	.0	.0	---	---	---	.1	.0	.0	.1	---	.3
19	.0	.0	---	---	---	---	.0	.0	.0	.0	---	.2
20	.0	.0	---	---	---	---	.0	.0	.2	.0	---	.0
21	.0	.0	---	---	---	---	.0	.0	.1	.0	---	.0
22	.4	.0	---	---	---	---	.0	---	.0	---	---	.1
23	.0	.0	---	---	---	---	.0	.0	.0	---	---	.1
24	.0	.0	---	---	---	---	.0	.0	.0	---	---	.0
25	.0	.0	---	---	---	---	.0	---	.0	---	---	.0
26	.0	.3	---	---	---	---	.0	---	.0	---	---	.0
27	.0	.0	---	---	---	---	.0	---	.1	---	---	.0
28	.0	.0	---	---	---	---	.0	---	.3	---	---	.0
29	.0	.0	---	---	---	---	.0	---	.0	---	---	.0
30	.0	.0	---	---	---	---	.0	---	.0	---	---	.0
31	.0	---	---	---	---	---	.0	---	---	---	---	.0
TOTAL	---	0.6	---	---	---	---	1.2	---	---	---	---	2.1



## MISCELLANEOUS STATION ANALYSES--Continued

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)
09032100 CABIN CREEK NEAR FRASER, CO (LAT 39 59 09N LONG 105 44 40W)									
OCT 1995 24...	1216	3.1	42	0.0	JUL 1996 19...	1045	10	38	7.5
JAN 1996 23...	1545	1.4	52	0.0	AUG 13...	1315	3.3	45	12.0
APR 30...	1425	2.6	--	1.5	SEP 11...	0943	1.9	49	6.5
JUN 05...	1430	17	28	8.5					
13...	1350	51	27	8.0					
09034250 COLORADO RIVER AT WINDY GAP, NEAR GRANBY, CO (LAT 40 06 30N LONG 106 00 13W)									
OCT 1995 26...	1500	94	131	3.5	MAY 1996 22...	1330	1150	78	8.0
DEC 07...	0900	110	139	3.0	JUN 12...	1000	1190	85	9.0
JAN 1996 11...	1500	91	128	0.0	AUG 12...	1330	115	133	17.0
MAR 28...	0900	416	92	2.0	SEP 05...	1330	77	129	18.5
APR 23...	1430	696	94	6.0					
09034900 BOBTAIL CREEK NEAR JONES PASS, CO (LAT 39 45 37N LONG 105 54 21W)									
OCT 1995 18...	1400	4.1	50	4.0	APR 1996 29...	1300	1.0	66	0.5
NOV 22...	1445	2.0	61	0.0	JUN 10...	1420	94	30	2.5
JAN 1996 03...	--	0.95	66	0.0	JUL 02...	1002	50	34	6.0
09...	1422	0.91	65	0.0					
09035500 WILLIAMS FORK BELOW STEELMAN CREEK, CO (LAT 39 46 44N LONG 105 55 40W)									
OCT 1995 18...	1040	11	51	0.5	JUN 1996 10...	1018	220	31	3.0
NOV 22...	1111	6.4	56	0.0	JUL 02...	1140	132	35	7.0
JAN 1996 03...	--	3.9	65	0.0	SEP 10...	1035	3.9	55	--
09...	--	3.9	63	0.0					
APR 29...	1320	5.3	--	0.5					
09035700 WILLIAMS FORK ABOVE DARLING CREEK, NR LEAL, CO (LAT 39 47 22N LONG 106 01 18W)									
OCT 1995 02...	1025	35	56	3.0	JUN 1996 13...	0920	342	34	3.0
30...	0955	22	56	1.0	JUL 08...	1225	171	39	8.5
JAN 1996 17...	1035	14	88	0.0	AUG 05...	1020	40	52	8.0
MAR 19...	1110	20	69	0.0	SEP 09...	1145	15	62	9.5
APR 22...	1155	25	67	0.5					
MAY 13...	1035	128	45	2.5					
09035800 DARLING CREEK NEAR LEAL, CO (LAT 39 48 17N LONG 106 01 11W)									
OCT 1995 02...	0855	6.9	67	2.0	JUN 1996 13...	1015	--	42	3.5
30...	0850	4.6	69	1.0	19...	1400	70	43	6.5
JAN 1996 16...	1010	2.9	72	0.5	JUL 08...	0855	28	52	5.5
MAR 18...	1335	2.1	79	0.5	AUG 05...	0855	7.4	67	5.5
MAY 03...	0950	3.1	76	1.5	SEP 09...	1040	4.1	76	5.5
13...	0900	24	56	1.5					

## SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

## MISCELLANEOUS STATION ANALYSES--Continued

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
09035900    SOUTH FORK WILLIAMS FORK NEAR LEAL, CO (LAT 39 47 44N LONG 106 01 49W)									
OCT 1995 02... 30...	1135 1100	20 17	76 72	3.0 1.5	MAY 1996 13... JUL 08...	1220 1135	93 122	60 51	4.0 7.5
JAN 1996 16... MAR 19... APR 22...	1315 1405 1415	11 11 13	88 90 89	0.0 0.0 0.5	AUG 05... SEP 09...	1144 1255	35 18	71 82	7.5 8.0
09036000    WILLIAMS FORK NEAR LEAL, CO (LAT 39 49 53N LONG 106 03 15W)									
OCT 1995 02... 30...	1335 1227	69 53	70 72	6.0 2.5	JUN 1996 06... JUL 08...	1208 1312	547 373	48 47	6.0 10.0
JAN 1996 17... MAR 18... APR 23... MAY 13...	1230 1130 0945 1340	28 23 36 --	82 87 86 56	0.5 1.0 4.0 7.0	AUG 05... SEP 09...	1305 1410	101 46	67 79	11.5 11.5
09037500    WILLIAMS FORK NEAR PARSHALL, CO (LAT 40 00 01N LONG 106 10 45W)									
OCT 1995 03... 31...	1005 0845	86 58	83 86	5.0 2.5	JUN 1996 06... JUL 09...	1000 0750	614 254	52 59	5.5 10.0
JAN 1996 18... MAR 20... APR 23... MAY 14...	1045 0950 1105 1025	68 34 78 710	88 104 96 54	0.0 0.0 4.0 4.0	AUG 06... SEP 10...	0845 0910	23 16	112 126	10.0 9.5
09038500    WILLIAMS FORK BELOW WILLIAMS FORK RESERVOIR, CO (LAT 40 02 07N LONG 106 12 17W)									
OCT 1995 03... 31...	1055 1030	103 168	74 80	10.0 8.5	JUN 1996 06... 19... 28...	0835 0957 0830	182 918 624	79 75 72	7.0 11.5 12.0
JAN 1996 18... MAR 20... APR 23... MAY 14...	1210 1035 1330 1220	112 256 259 251	87 93 101 91	3.5 3.0 3.5 5.5	JUL 09... AUG 06... SEP 10...	0930	293 110 1015 0930	73 71 71 71	10.5 9.0 9.0 9.0
09041000    MUDDY CREEK NEAR KREMLING, CO (LAT 40 17 37N LONG 106 28 59W)									
OCT 1995 24... DEC 05... APR 1996 10...	1640 1630 1330	9.5 13 164	274 247 260	3.0 0.5 0.5	MAY 1996 21... AUG 14... SEP 04...	1100 1045 0900	683 10 5.0	104 340 267	5.0 15.5 11.5
09046490    BLUE RIVER AT BLUE RIVER, CO (LAT 39 27 21N LONG 106 01 52W)									
OCT 1995 19... NOV 21... MAR 1996 27... APR 19... MAY 22...	1120 1500 1300 1222 1020	19 13 5.1 10 200	154 173 181 182 115	6.0 3.0 1.0 1.0 6.0	JUN 1996 12... JUL 17... AUG 07... SEP 11...	0900 0953 1022 1044	161 83 24 17	123 101 128 142	7.5 11.5 13.5 11.0

## MISCELLANEOUS STATION ANALYSES--Continued

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT- ANCE PER SECOND	TEMPER- ATURE WATER (DEG C)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT- ANCE PER SECOND	TEMPER- ATURE WATER (DEG C)
09046600      BLUE RIVER NEAR DILLON, CO (LAT 39 32 55N LONG 106 02 19W)									
OCT 1995					JUN 1996				
18...	1616	66	153	8.0	04...	1820	465	123	7.5
26...	0900	51	149	4.0	11...	1216	614	107	8.5
NOV					14...	1035	--	--	--
21...	1335	46	162	6.0	21...	1250	--	--	--
JAN 1996					25...	0930	438	106	7.0
18...	1005	33	--	0.0	JUL				
MAR					16...	1025	217	113	11.5
28...	1116	29	184	6.0	18...	1200	200	114	10.5
APR					25...	1635	110	121	13.0
18...	1333	60	193	5.0	AUG				
23...	1500	--	--	--	07...	1207	97	135	12.5
MAY					15...	1235	65	142	12.5
01...	1230	--	--	--	SEP				
08...	1245	--	--	--	09...	1800	56	154	10.0
16...	1115	--	--	--	17...	1027	70	154	8.5
22...	1227	572	116	7.5					
24...	0915	449	109	5.5					
24...	1215	449	109	5.5					
30...	1408	465	125	7.0					
30...	1425	--	--	--					
09047500      SNAKE RIVER NEAR MONTEZUMA, CO (LAT 39 36 20N LONG 105 56 33W)									
OCT 1995					MAY 1996				
20...	1010	17	118	0.5	21...	1548	313	77	5.0
NOV					JUN				
21...	1030	24	118	1.0	11...	1438	566	54	6.5
JAN 1996					JUL				
18...	1305	15	132	0.0	16...	1120	165	64	7.5
MAR					AUG				
28...	1530	12	153	2.0	06...	1416	71	80	10.5
APR					SEP				
26...	1140	24	178	4.0	10...	1332	36	90	9.0
09047700      KEYSTONE GULCH NEAR DILLON, CO (LAT 39 35 40N LONG 105 58 19W)									
OCT 1995					MAY 1996				
20...	1140	3.6	82	0.5	21...	1800	68	57	4.0
NOV					JUN				
21...	1140	3.9	84	0.0	10...	1450	74	53	7.0
JAN 1996					JUL				
18...	1443	2.9	86	0.0	15...	1550	13	69	10.0
MAR					AUG				
29...	0940	2.5	88	0.0	06...	1538	6.1	77	12.0
APR					SEP				
25...	1640	4.4	92	3.0	10...	1445	4.0	83	10.0
09050100      TENMILE CREEK BELOW NORTH TENMILE CREEK, AT FRISCO, CO (LAT 39 34 37N LONG 106 06 33W)									
OCT 1995					JUN 1996				
18...	1450	43	650	6.0	11...	1616	841	244	8.0
NOV					JUL				
20...	1425	36	809	3.0	16...	1407	194	370	10.5
MAR 1996					AUG				
27...	1027	29	1150	0.0	07...	1405	75	515	12.0
APR					SEP				
18...	1126	45	793	2.5	11...	1248	37	628	10.5
MAY									
22...	1630	620	210	7.5					
09050700      BLUE RIVER BELOW DILLON, CO (LAT 39 37 32N LONG 106 03 57W)									
NOV 1995					JUN 1996				
20...	1305	245	193	5.0	10...	1635	1680	217	5.0
JAN 1996					JUL				
17...	1425	110	227	3.0	16...	1220	669	160	13.0
MAR					AUG				
28...	1345	328	260	3.5	07...	--	196	--	--
MAY					SEP				
23...	--	468	--	--	11...	1422	109	184	7.0

## SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

## MISCELLANEOUS STATION ANALYSES--Continued

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND				SPE- CIFIC CON- DUCT- ANCE (US/CM)				DIS- CHARGE, INST. CUBIC FEET PER SECOND				SPE- CIFIC CON- DUCT- ANCE (US/CM)			
		TEMPER- ATURE (DEG C)	WATER (DEG C)	DATE	TIME	TEMPER- ATURE (DEG C)	WATER (DEG C)	DATE	TIME	TEMPER- ATURE (DEG C)	WATER (DEG C)	DATE	TIME	TEMPER- ATURE (DEG C)	WATER (DEG C)		
09051050		STRAIGHT CREEK BELOW LASKEY GULCH NEAR DILLON, CO (LAT 39 38 23N LONG 106 02 23W)															
OCT 1995 18...	1315	12	121	3.0		JUN 1996 11...		0845	131	72	3.0						
NOV 20...	1130	8.2	163	1.0		JUL 15...		1321	38	79	9.0						
JAN 1996 17...	1025	5.5	230	0.0		AUG 06...		1223	19	100	9.0						
MAR 27...	1515	7.4	368	0.0		SEP 10...		1130	10	120	7.5						
MAY 21...	1200	80	112	4.5													
09058500		PINEY RIVER BELOW PINEY LAKE, NEAR MINTURN, CO (LAT 39 42 29N LONG 106 25 38W)															
OCT 1995 19...	1105	12	41	3.0		APR 1996 17...		1130	17	65	0.5						
NOV 30...	1105	5.9	55	0.0		MAY 30...		1530	71	39	8.0						
FEB 1996 09...	1405	3.9	72	1.0		JUL 09...		1415	69	26	11.0						
MAR 20...	1410	3.8	75	0.0		AUG 16...		1305	8.0	44	15.0						
09058610		DICKSON CREEK NEAR VAIL, CO (LAT 39 42 14N LONG 106 27 25W)															
OCT 1995 18...	1010	2.1	363	5.0		MAY 1996 29...		1355	21	242	8.0						
FEB 1996 09...	1010	1.6	395	0.5		JUL 10...		1240	6.1	316	13.5						
MAR 15...	1035	1.0	390	0.0		AUG 08...		1420	3.3	348	14.5						
APR 30...	1540	3.4	313	1.0													
09058700		FREEMAN CREEK NEAR MINTURN, CO (LAT 39 41 55N LONG 106 26 41W)															
OCT 1995 19...	0900	0.37	199	2.5		JUL 1996 09...		1735	1.3	214	17.0						
APR 1996 29...	1245	2.4	166	0.0		AUG 16...		0910	0.38	253	10.0						
MAY 29...	1655	15	115	12.5													
09058800		EAST MEADOW CREEK NEAR MINTURN, CO (LAT 39 43 54N LONG 106 25 36W)															
OCT 1995 17...	1025	2.1	60	0.5		JUL 1996 09...		1105	8.8	42	7.0						
APR 1996 30...	1125	1.4	76	0.5		AUG 23...		1310	1.2	61	8.0						
MAY 30...	1220	17	43	2.5													
09060770		ROCK CREEK AT MCCOY, CO (LAT 39 54 44N LONG 106 43 30W)															
OCT 1995 17...	1325	32	360	8.5		APR 1996 17...		1455	161	287	7.0						
NOV 29...	1045	28	396	1.5		MAY 16...		1330	589	135	11.0						
FEB 1996 07...	1320	23	351	2.0		JUN 26...		1110	35	286	16.0						
MAR 06...	1515	23	377	5.5		AUG 13...		1135	13	450	15.5						
09063000		EAGLE RIVER AT RED CLIFF, CO (LAT 39 30 34N LONG 106 22 00W)															
OCT 1995 19...	1410	22	215	6.5		APR 1996 16...		1445	31	218	6.5						
NOV 29...	1215	16	215	0.0		MAY 17...		0955	425	122	4.0						
JAN 1996 30...	1505	12	221	0.5		JUL 10...		1840	50	189	15.5						
MAR 12...	1100	11	226	0.5		AUG 09...		1115	22	229	11.0						

## MISCELLANEOUS STATION ANALYSES--Continued

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)
09063200 WEARYMAN CREEK NEAR RED CLIFF, CO (LAT 39 31 14N LONG 106 19 06W)									
OCT 1995 19...	1730	3.7	282	1.0	MAY 1996 24...	1110	48	222	4.0
JAN 1996 23...	1035	1.4	292	0.0	JUL 01...	1415	41	220	7.5
MAR 13...	1040	1.3	302	0.5	02...	1345	35	26	12.5
APR 18...	1050	3.0	330	1.5	AUG 07...	1505	6.3	271	7.5
09063400 TURKEY CREEK NEAR RED CLIFF, CO (LAT 39 31 32N LONG 106 20 08W)									
OCT 1995 19...	1545	6.8	277	2.0	MAY 1996 23...	1420	162	198	5.5
JAN 1996 23...	1415	3.9	288	0.0	JUL 01...	1620	99	194	9.5
MAR 13...	1320	4.1	296	0.5	AUG 15...	1842	11	270	9.0
APR 18...	1330	12	299	2.0					
09063900 MISSOURI CREEK NEAR GOLD PARK, CO (LAT 39 23 25N LONG 106 28 10W)									
OCT 1995 16...	1500	7.1	27	4.0	MAY 1996 22...	1625	28	26	2.5
FEB 1996 08...	1205	1.0	37	0.0	JUL 02...	1125	13	22	7.0
MAR 14...	1100	0.83	40	0.0	AUG 15...	1545	8.5	22	12.0
APR 16...	1040	2.3	34	0.0					
09064000 HOMESTAKE CREEK AT GOLD PARK, CO (LAT 39 24 20N LONG 106 25 58W)									
OCT 1995 16...	1750	22	28	5.0	MAY 1996 22...	1830	112	27	5.5
FEB 1996 08...	1440	12	40	0.0	JUL 02...	1345	35	26	12.5
MAR 14...	1335	4.7	42	0.5	AUG 22...	1510	23	26	13.0
APR 16...	1300	15	37	2.5					
09064500 HOMESTAKE CREEK NEAR RED CLIFF, CO (LAT 39 28 24N LONG 106 22 02W)									
OCT 1995 18...	1615	29	32	8.0	APR 1996 16...	1115	54	57	2.0
DEC 01...	0900	16	35	0.0	MAY 23...	1805	178	29	8.5
FEB 1996 08...	1730	19	45	0.0	JUL 02...	1555	69	29	14.0
MAR 19...	1150	13	41	0.0	AUG 23...	1640	26	31	14.0
09064600 EAGLE RIVER NEAR MINTURN, CO (LAT 39 33 14N LONG 106 24 07W)									
OCT 1995 05...	1600	77	133	6.0	APR 1996 15...	1605	144	160	5.0
NOV 29...	1030	53	162	0.0	MAY 16...	1000	945	103	4.0
FEB 1996 01...	0745	42	164	0.0	JUN 26...	1115	425	127	8.0
07...	1610	41	318	0.0	AUG 27...	1450	57	165	14.5
MAR 12...	1330	41	204	0.0					
09065100 CROSS CREEK NEAR MINTURN, CO (LAT 39 34 05N LONG 106 24 45W)									
OCT 1995 18...	1325	22	41	5.5	APR 1996 16...	1715	28	44	4.5
NOV 28...	1615	11	48	0.0	MAY 16...	1720	366	27	7.5
JAN 1996 26...	0900	5.2	53	0.0	JUL 10...	1620	116	23	14.0
MAR 12...	1705	6.4	52	0.0	AUG 28...	1219	19	36	14.5

## SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

## MISCELLANEOUS STATION ANALYSES--Continued

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
09065500		GORE CREEK AT UPPER STATION, NEAR MINTURN, CO (LAT 39 37 40N LONG 106 16 24W)							
NOV 1995 07...	1240	6.9	59	0.5	JUL 1996 01...	1150	121	30	6.5
JAN 1996 10...	0947	4.0	66	0.5	AUG 03...	1755	--	--	--
MAR 20...	1205	3.8	82	1.0	05...	1115	26	46	7.0
APR 23...	1600	10	65	5.0	20...	0916	17	52	8.0
MAY 16...	1155	118	36	4.0	SEP 03...	1405	7.5	58	10.5
JUN 11...	1500	181	32	5.0	06...	1804	--	--	--
09066000		BLACK GORE CREEK NEAR MINTURN, CO (LAT 39 35 47N LONG 106 15 52W)							
NOV 1995 07...	1025	3.8	198	0.0	JUL 1996 02...	1035	50	104	7.0
JAN 1996 11...	1010	2.6	275	0.0	AUG 03...	1740	--	--	--
MAR 29...	0855	4.8	--	0.5	06...	1010	6.4	170	7.0
APR 24...	1025	7.7	486	2.5	19...	1342	3.5	180	9.5
MAY 16...	1010	99	134	3.0	SEP 04...	1005	3.6	192	8.0
JUN 11...	0900	155	--	--	06...	1752	--	--	--
09066100		BIGHORN CREEK NEAR MINTURN, CO (LAT 39 38 24N LONG 106 17 34W)							
NOV 1995 07...	1415	1.4	60	1.0	JUN 1996 11...	1115	54	33	4.5
JAN 1996 10...	1155	0.84	69	0.5	JUL 01...	1315	41	33	7.0
MAR 20...	1335	0.86	78	1.0	AUG 05...	1230	7.1	42	7.0
APR 23...	1428	3.0	72	3.5	20...	1107	4.9	45	7.5
MAY 16...	1330	47	37	4.5	SEP 03...	1455	3.5	52	10.0
09066150		PITKIN CREEK NEAR MINTURN, CO (LAT 39 38 37N LONG 106 18 07W)							
NOV 1995 07...	1520	2.6	75	1.5	JUN 1996 11...	1440	75	42	5.5
JAN 1996 10...	1300	1.9	82	1.0	JUL 01...	1500	40	38	7.5
MAR 20...	1515	1.4	110	1.0	AUG 05...	1335	8.7	57	8.0
APR 23...	1310	4.0	139	3.5	21...	0826	4.7	66	7.0
MAY 16...	1450	54	52	4.5	SEP 04...	1005	4.1	76	7.0
09066200		BOOTH CREEK NEAR MINTURN, CO (LAT 39 39 02N LONG 106 19 16W)							
NOV 1995 08...	0913	2.0	97	1.0	JUN 1996 11...	1610	93	48	4.5
JAN 1996 10...	1425	1.5	119	1.0	JUL 02...	1150	47	42	7.0
MAR 21...	0915	1.3	149	1.0	AUG 06...	1210	5.1	77	9.0
APR 23...	1120	4.5	185	4.5	21...	1027	2.5	98	9.0
MAY 16...	1600	81	72	5.0	SEP 04...	1225	1.4	120	10.0

## MISCELLANEOUS STATION ANALYSES--Continued

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)
09066300 MIDDLE CREEK NEAR MINTURN, CO (LAT 39 38 50N LONG 106 22 48W)									
NOV 1995 08...	1110	1.0	199	1.5	JUN 1996 12...	1115	50	130	4.5
JAN 1996 11...	1420	0.53	217	0.5	JUL 02...	1320	31	116	8.0
MAR 21...	1325	0.45	237	2.5	AUG 06...	1510	2.3	214	11.0
APR 24...	1423	2.2	293	5.5	SEP 22...	0813	1.4	234	7.5
MAY 17...	1040	36	153	3.0	SEP 04...	1455	0.92	253	9.5
09066310 GORE CREEK, LOWER STATION, AT VAIL, CO (LAT 39 38 28N LONG 106 23 37W)									
NOV 1995 08...	1425	26	255	4.0	JUL 1996 02...	1615	507	99	11.0
JAN 1996 11...	1305	24	303	0.5	AUG 06...	1340	57	195	13.5
MAR 21...	1145	21	385	4.0	SEP 22...	0750	35	229	10.0
APR 24...	1215	64	319	7.0	SEP 04...	1356	23	279	12.0
JUN 12...	1100	979	100	5.0					
09066400 RED SANDSTONE CREEK NEAR MINTURN, CO (LAT 39 40 58N LONG 106 24 03W)									
OCT 1995 17...	1700	3.0	82	3.0	APR 1996 18...	1820	4.6	101	0.5
NOV 30...	1435	1.7	84	0.5	MAY 24...	0805	79	50	1.5
JAN 1996 31...	1140	1.1	86	0.0	JUL 08...	1620	17	60	10.5
MAR 13...	1630	1.2	92	0.5	AUG 08...	1025	2.8	97	5.5
09066980 LAKE CREEK NEAR EDWARDS, CO (LAT 39 38 51N LONG 106 36 31W)									
OCT 1995 05...	1010	41	337	4.5	APR 1996 18...	0935	30	431	3.0
NOV 28...	1355	28	369	0.0	MAY 17...	0745	331	129	4.5
JAN 1996 22...	1510	13	435	1.5	JUN 27...	1040	228	148	8.5
MAR 11...	1425	12	425	4.0	AUG 14...	0645	37	346	10.5
09067000 BEAVER CREEK AT AVON, CO (LAT 39 37 47N LONG 106 31 20W)									
OCT 1995 04...	1545	9.4	259	3.5	APR 1996 15...	1430	9.1	410	6.5
NOV 29...	1505	4.9	277	0.5	MAY 15...	1030	72	143	4.5
JAN 1996 26...	1410	3.4	327	3.5	JUL 03...	1220	36	99	11.5
MAR 11...	1710	3.7	386	1.5	AUG 15...	1120	5.7	290	14.0
09070000 EAGLE RIVER BELOW GYPSUM, CO (LAT 39 38 58N LONG 106 57 11W)									
OCT 1995 10...	1144	353	686	7.0	MAY 1996 21...	1315	3090	166	7.5
NOV 29...	1425	228	835	0.5	JUN 25...	1452	2380	197	11.0
JAN 1996 03...	1435	228	863	0.0	AUG 12...	1112	280	683	15.0
MAR 06...	1055	190	456	3.5	SEP 19...	1241	309	793	9.5
APR 18...	1355	501	482	6.0					

## SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

## MISCELLANEOUS STATION ANALYSES--Continued

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
09071300 GRIZZLY CREEK NEAR GLENWOOD SPRINGS, CO (LAT 39 43 00N LONG 107 18 35W)									
OCT 1995 12...	1440	1.9	254	5.5	AUG 1996 01...	1705	1.7	228	14.5
JUN 1996 19...	1305	44	215	8.5					
09073300 ROARING FORK RIVER ABOVE DIFFICULT CREEK NR ASPEN, CO (LAT 39 08 28N LONG 106 46 25W)									
OCT 1995 16...	1330	38	59	5.0	JUN 1996 19...	1800	692	29	8.0
JAN 1996 30...	0850	15	63	1.0	JUL 23...	0700	116	40	8.5
MAR 26...	1230	22	80	1.5	SEP 30...	1230	50	69	6.0
MAY 07...	1010	97	50	3.5					
	1050	241	36	4.5					
09073400 ROARING FORK RIVER NEAR ASPEN, CO (LAT 39 10 48N LONG 106 48 05W)									
OCT 1995 16...	1720	69	73	8.0	JUN 1996 19...	1700	827	31	9.0
JAN 1996 30...	1355	30	90	0.0	AUG 14...	1130	75	74	12.0
MAR 18...	1640	30	107	2.5	SEP 30...	1350	70	75	7.5
MAY 07...	1130	155	55	5.0					
	1240	369	49	5.0					
09074000 HUNTER CREEK NEAR ASPEN, CO (LAT 39 12 21N LONG 106 47 49W)									
OCT 1995 16...	1005	19	50	2.0	JUN 1996 20...	1400	360	24	9.0
JAN 1996 30...	1118	7.2	72	0.5	JUL 22...	1550	60	55	9.0
MAR 16...	1500	9.7	55	1.0	SEP 10...	1305	10	75	13.0
MAY 07...	1320	150	40	6.5	30...	1510	30	50	8.5
	1520	380	95	5.0					
09080400 FRYINGPAN RIVER NEAR RUEDI, CO (LAT 39 21 56N LONG 106 49 30W)									
OCT 1995 17...	0835	205	157	9.0	MAY 1996 03...	1240	255	240	4.0
JAN 1996 29...	1500	229	239	3.0	22...	1500	851	210	6.0
MAR 18...	1450	294	269	3.0	30...	1400	260	160	6.5
					JUN 19...	1100	445	125	7.0
					JUL 23...	1030	105	140	8.5
09081600 CRYSTAL RIVER ABOVE AVALANCHE CREEK, NEAR REDSTONE, CO (LAT 39 13 56N LONG 107 13 36W)									
OCT 1995 17...	1120	118	778	6.0	MAY 1996 03...	1240	302	356	8.5
JAN 1996 03...	1030	57	670	1.5	24...	1010	1020	198	5.5
	29...	1245	58	720	JUN 20...	1010	1200	185	8.5
MAR 18...	1430	53	674	4.0	JUL 23...	1300	270	235	13.0
09085100 COLORADO RIVER BELOW GLENWOOD SPRINGS, CO (LAT 39 33 18N LONG 107 20 13W)									
OCT 1995 03...	1420	2420	687	10.5	APR 1996 16...	1130	4950	467	7.5
NOV 28...	0840	2100	675	1.0	MAY 22...	0935	13500	228	8.0
JAN 1996 04...	1310	2080	840	2.0	JUN 28...	1045	12500	241	10.0
MAR 06...	0810	2020	453	3.5	AUG 09...	1020	2480	657	16.0

## MISCELLANEOUS STATION ANALYSES--Continued

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT- PER SECOND	TEMPER- ATURE WATER (US/CM)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT- PER SECOND	TEMPER- ATURE WATER (US/CM)
09086000 WEST ELK CREEK NEAR NEW CASTLE, CO (LAT 39 39 59N LONG 107 37 35W)									
OCT 1995 03...	1125	1.6	830	6.0	APR 1996 16...	1025	1.9	857	4.5
NOV 27...	1325	0.46	666	2.0	MAY 15...	1355	3.7	686	11.5
JAN 1996 16...	1645	0.51	707	1.0	JUN 26...	1750	1.7	648	14.5
MAR 01...	1330	0.81	913	1.5	AUG 08...	1120	1.5	692	14.5
09086470 MAIN ELK CREEK NEAR NEW CASTLE, CO (LAT 39 40 41N LONG 107 34 21W)									
OCT 1995 03...	0905	21	373	5.5	APR 1996 16...	0840	40	260	3.5
NOV 27...	1155	13	374	3.0	MAY 15...	1540	640	289	9.0
JAN 1996 17...	0815	11	364	1.5	JUN 27...	1610	100	271	12.0
MAR 05...	1050	11	375	1.5	AUG 08...	1250	25	336	12.0
09086970 EAST ELK CREEK ABOVE BOILER CREEK NEAR NEW CASTLE, CO (LAT 39 40 05N LONG 107 31 28W)									
OCT 1995 02...	1510	9.7	272	6.5	MAY 1996 20...	1045	213	160	5.0
NOV 27...	1030	5.5	281	1.5	JUN 27...	1410	78	207	10.0
JAN 1996 16...	1505	5.3	278	2.0	JUL 23...	1220	20	180	11.5
MAR 11...	1135	5.5	282	2.5	AUG 08...	1515	14	236	13.0
APR 15...	1610	22	255	5.0					
09089500 WEST DIVIDE CREEK NEAR RAVEN, CO (LAT 39 19 52N LONG 107 34 46W)									
OCT 1995 02...	1230	8.2	454	7.5	APR 1996 15...	1300	78	164	4.0
NOV 24...	1105	3.2	492	0.0	MAY 15...	0950	277	180	6.5
JAN 1996 16...	1245	3.0	466	0.0	JUN 28...	1425	39	232	14.0
MAR 01...	1055	4.7	486	0.0	AUG 14...	1055	0.74	315	15.5
09093700 COLORADO RIVER NEAR DE BEQUE, CO (LAT 39 21 45N LONG 108 09 07W)									
OCT 1995 02...	1255	2780	873	12.5	MAR 1996 25...	1525	3360	709	6.0
NOV 06...	1445	2480	925	5.5	MAY 14...	1200	15400	293	13.0
DEC 13...	1450	2260	920	4.5	JUN 24...	1155	16800	240	15.5
FEB 1996 08...	1140	2180	929	3.0	AUG 08...	0730	2650	820	19.0
09107000 TAYLOR RIVER AT TAYLOR PARK, CO (LAT 38 50 59N LONG 106 34 21W)									
OCT 1995 04...	0915	102	105	3.5	MAY 1996 22...	0918	620	61	1.5
DEC 05...	0840	62	108	0.5	JUL 10...	1035	220	102	10.0
FEB 1996 14...	0940	40	--	0.0	AUG 21...	0952	65	117	9.0
APR 10...	1130	106	77	0.5					
09109000 TAYLOR RIVER BELOW TAYLOR PARK RESERVOIR, CO (LAT 38 49 06N LONG 106 36 31W)									
OCT 1995 04...	0950	400	87	10.5	MAY 1996 22...	1100	367	91	4.0
DEC 05...	0944	--	92	3.5	JUL 10...	1210	515	81	7.0
JAN 1996 22...	1320	95	97	3.5	AUG 21...	1113	430	80	9.5
APR 10...	1315	142	--	--					
10...	1350	142	128	5.5					

## SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

## MISCELLANEOUS STATION ANALYSES--Continued

DATE	TIME	DIS- CHARGE, INST., CUBIC FEET	SPE- CIFIC CON- DUCT-	TEMPER- ATURE WATER (DEG C)	DATE	TIME	DIS- CHARGE, INST., CUBIC FEET	SPE- CIFIC CON- DUCT-	TEMPER- ATURE (DEG C)
		SECOND	(US/CM)				SECOND	(US/CM)	
09112200 EAST RIVER BELOW CEMENT CREEK NEAR CRESTED BUTTE, CO (LAT 38 47 03N LONG 106 52 13W)									
OCT 1995					APR 1996				
13...	1200	--	--	--	03...	1315	100	253	6.0
16...	1300	--	--	--	10...	1445	335	215	3.0
18...	0915	148	281	9.5	MAY				
25...	1140	106	285	3.5	07...	1431	1260	182	7.5
NOV					16...	1120	2260	149	5.5
30...	0835	68	309	0.0	16...	1125	2260	149	5.5
30...	1015	68	316	1.5	22...	1630	1860	155	10.5
DEC					30...	1200	930	192	6.5
06...	1430	e80	293	3.5	JUN				
15...	1100	e63	314	0.0	12...	1320	1740	154	8.5
JAN 1996					JUL				
11...	1430	88	278	1.0	17...	1120	486	218	12.5
18...	1520	e62	299	0.0	AUG				
FEB					23...	1200	137	305	13.5
27...	1410	66	293	2.0	SEP				
28...	0930	62	300	0.0	03...	1136	96	305	13.5
MAR					11...	1215	90	305	13.0
19...	1530	63	283	4.0					
27...	1315	62	277	5.0					
09113100 CASTLE CREEK ABOVE MOUTH NEAR BALDWIN, CO (LAT 38 46 09N LONG 107 05 02W)									
OCT 1995					MAY 1996				
05...	1615	15	75	4.5	22...	1355	152	55	8.5
24...	1600	15	78	0.0	JUL				
NOV					11...	0850	51	49	6.0
29...	1220	9.8	83	0.0	AUG				
JAN 1996					20...	1424	16	73	13.5
24...	1310	6.6	24	0.0					
APR									
09...	1030	20	94	0.0					
09115500 TOMICHI CREEK AT SARGENTS, CO (LAT 38 23 42N LONG 106 25 19W)									
OCT 1995					MAY 1996				
03...	1335	41	156	9.0	20...	1551	455	98	13.0
DEC					JUL				
05...	1547	38	183	0.5	11...	1100	55	142	14.5
APR 1996					AUG				
09...	1745	159	123	4.0	20...	1034	27	193	12.0
09118450 COCHETOPA CREEK BELOW ROCK CREEK NEAR PARLIN, CO (LAT 38 20 08N LONG 106 46 18W)									
OCT 1995					MAY 1996				
03...	1520	47	186	10.0	20...	1700	67	123	15.5
DEC					JUL				
05...	1410	36	202	0.0	11...	1310	37	321	17.5
APR 1996					AUG				
10...	0915	106	142	0.5	20...	1220	16	301	13.5
09124500 LAKE FORK AT GATEVIEW, CO (LAT 38 17 56N LONG 107 13 46W)									
OCT 1995					MAY 1996				
06...	1135	117	148	4.5	20...	1150	1550	93	7.5
DEC					JUL				
04...	1350	83	163	0.5	09...	1350	350	111	14.5
FEB 1996					AUG				
12...	1350	51	176	0.0	19...	1420	89	166	17.5
APR					SEP				
08...	1645	154	172	11.0	30...	1355	106	171	10.5
09126000 CIMARRON RIVER NEAR CIMARRON, CO (LAT 38 15 45N LONG 107 32 39W)									
OCT 1995					MAY 1996				
11...	1325	56	120	10.5	16...	1305	645	101	6.0
31...	1410	34	122	6.5	JUL				
NOV					09...	1035	160	78	7.5
28...	1505	15	124	1.5	AUG				
FEB 1996					13...	1500	118	100	15.0
06...	1140	17	131	1.5					
APR									
08...	1255	27	32	6.0					

e-Estimated.

## MISCELLANEOUS STATION ANALYSES--Continued

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT- PER SECOND	TEMPER- ATURE WATER (DEG C)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT- PER SECOND	TEMPER- ATURE WATER (DEG C)
09132500 NORTH FORK GUNNISON RIVER NEAR SOMERSET, CO (LAT 38 55 33N LONG 107 26 01W)									
OCT 1995 17...	1450	156	172	10.5	MAY 1996 06...	1100	1960	153	9.0
NOV 08...	1244	160	204	5.5	22...	1200	2010	92	10.0
JAN 1996 09...	1214	58	164	0.0	JUN 20...	1340	778	88	15.0
MAR 13...	1100	325	235	2.5	JUL 24...	0930	245	143	12.0
09134000 MINNESOTA CREEK NEAR PAONIA, CO (LAT 38 52 13N LONG 107 30 06W)									
OCT 1995 18...	1120	5.4	508	6.0	MAY 1996 08...	0935	46	240	6.5
NOV 08...	1415	4.9	527	5.5	JUN 18...	0915	34	241	8.5
JAN 1996 10...	1035	4.7	571	0.5	JUL 24...	1215	22	263	19.5
MAR 13...	1410	6.0	968	5.0					
09135900 LEROUX CREEK AT HOTCHKISS, CO (LAT 38 47 53N LONG 107 43 53W)									
OCT 1995 18...	1445	18	1260	13.5	MAY 1996 08...	1030	38	1370	8.5
NOV 09...	0815	13	1270	8.0	JUN 18...	1020	7.4	1390	9.0
JAN 1996 04...	1142	7.6	1160	5.5	JUL 24...	1400	5.2	1340	20.0
MAR 12...	1415	4.2	1290	12.0					
09143000 SURFACE CREEK NEAR CEDAREDGE, CO (LAT 38 59 05N LONG 107 51 13W)									
OCT 1995 19...	1150	12	89	3.5	MAY 1996 08...	1226	112	130	7.0
NOV 09...	1050	8.4	230	0.0	JUN 18...	1230	58	70	12.5
JAN 1996 10...	1405	3.7	140	0.0	JUL 26...	0910	66	60	11.5
APR 02...	1030	11	155	0.0					
09143500 SURFACE CREEK AT CEDAREDGE, CO (LAT 38 54 06N LONG 107 55 14W)									
OCT 1995 19...	0845	6.5	140	5.0	MAY 1996 08...	1415	56	118	11.5
NOV 09...	1230	1.7	224	7.0	JUN 18...	1415	36	84	12.0
JAN 1996 10...	1618	2.3	192	0.0	JUL 26...	1025	43	73	12.0
MAR 14...	1200	2.7	202	4.5					
09144250 GUNNISON RIVER AT DELTA, CO (LAT 38 45 01N LONG 108 04 06W)									
OCT 1995 05...	1445	1910	940	12.0	JUN 1996 17...	1350	3510	329	14.5
NOV 07...	1215	2420	597	9.5	JUL 25...	1350	846	731	17.5
JAN 1996 09...	1210	2180	402	3.0	AUG 20...	1215	959	782	18.0
FEB 15...	1215	1280	643	3.0	SEP 16...	1405	1110	865	15.0
MAY 10...	1410	6100	319	10.0					

## SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

## MISCELLANEOUS STATION ANALYSES--Continued

DATE	TIME	DIS- CHARGE, INST., CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	DIS- CHARGE, INST., CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
09147000 DALLAS CREEK NEAR RIDGWAY, CO (LAT 38 10 40N LONG 107 45 28W)									
OCT 1995 12...	0828	29	524	5.0	JUN 1996 12...	1835	7.4	867	17.5
NOV 28...	1506	28	653	0.0	27...	1115	32	871	14.0
JAN 1996 22...	1015	25	539	0.0	JUL 10...	1240	51	701	17.0
FEB 28...	1320	28	835	0.0	AUG 14...	1145	12	875	17.0
APR 16...	1300	32	460	7.5	SEP 26...	1015	31	706	8.5
MAY 08...	1600	9.2	512	17.5					
09147025 UNCOMPAHGRE RIVER BELOW RIDGWAY RESERVOIR, CO (LAT 38 14 17N LONG 107 45 31W)									
OCT 1995 12...	1220	166	342	13.0	APR 1996 16...	1500	294	554	5.0
NOV 28...	1445	95	506	8.0	MAY 31...	0640	298	529	7.0
JAN 1996 02...	1115	68	535	4.5	JUN 27...	1200	493	428	8.5
FEB 16...	0930	71	572	3.5	AUG 08...	0915	311	364	11.0
09147500 UNCOMPAHGRE RIVER AT COLONA, CO (LAT 38 19 53N LONG 107 46 44W)									
OCT 1995 13...	1030	197	504	10.0	MAR 1996 07...	1315	81	581	5.5
NOV 27...	1210	142	506	10.5	APR 02...	1520	345	567	8.5
JAN 1996 24...	1310	108	548	9.0	MAY 07...	1000	310	351	10.5
30...	0900	104	561	4.5	JUL 02...	0945	546	423	10.5
02...	1214	83	583	2.5	10...	1155	433	434	12.5
FEB 21...	1405	84	590	4.0	AUG 14...	1520	286	408	15.5
09149500 UNCOMPAHGRE RIVER AT DELTA, CO (LAT 38 44 31N LONG 108 04 49W)									
OCT 1995 05...	1100	485	1330	10.0	MAY 1996 07...	1330	482	925	12.0
26...	1500	505	1200	11.0	09...	0910	426	1080	11.5
NOV 07...	1305	442	1280	10.0	JUN 06...	1000	423	1160	17.0
24...	1005	311	1590	5.5	17...	1550	510	1140	20.0
JAN 1996 02...	1358	194	1640	0.5	JUL 02...	1245	468	1200	21.0
10...	1040	214	1620	1.5	25...	1530	160	1550	20.0
FEB 05...	1200	199	1580	3.5	AUG 08...	1135	141	1700	18.0
15...	1425	192	610	8.0	20...	1100	208	1610	18.0
MAR 07...	1015	177	1540	3.0	SEP 16...	1240	600	1160	15.0
APR 09...	1100	211	1230	11.0					
09165000 DOLORES RIVER BELOW RICO, CO (LAT 37 38 20N LONG 108 03 35W)									
OCT 1995 10...	1155	34	375	4.0	APR 1996 15...	1355	100	356	6.5
DEC 12...	0915	21	498	0.0	MAY 06...	0910	534	137	1.5
JAN 1996 23...	1220	14	553	0.0	29...	0955	169	190	3.5
FEB 29...	1015	20	548	0.0	JUN 18...	1400	102	230	14.0
MAR 13...	1405	27	468	0.5	10...	1040	109	242	12.5
20...	1330	38	580	1.5	AUG 19...	1300	24	440	13.0

## MISCELLANEOUS STATION ANALYSES--Continued

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT- PER SECOND	TEMPER- ATURE WATER (DEG C)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT- PER SECOND	TEMPER- ATURE WATER (DEG C)
09166500 DOLORES RIVER AT DOLORES, CO (LAT 37 28 21N LONG 108 29 49W)									
OCT 1995 03...	1010	146	324	7.0	MAY 1996 06...	0600	1980	140	4.5
JAN 1996 26...	1110	39	493	0.0	16...	0930	2050	129	6.0
FEB 29...	1235	50	485	0.0	JUN 18...	1045	220	265	14.0
APR 04...	1530	191	375	7.5	AUG 19...	0915	79	333	14.5
15...	1215	319	304	9.5					
09166950 LOST CANYON CREEK NEAR DOLORES, CO (LAT 37 26 45N LONG 108 28 03W)									
OCT 1995 03...	1205	0.01	625	15.5	MAY 1996 08...	1035	15	88	10.0
FEB 1996 14...	1215	1.7	178	0.5	JUN 18...	0930	0.03	1000	17.5
29...	1405	2.4	183	1.0					
APR 15...	1055	3.4	128	6.5					
09172500 SAN MIGUEL RIVER NEAR PLACERVILLE, CO (LAT 38 02 05N LONG 108 07 15W)									
OCT 1995 10...	1400	133	368	9.0	MAY 1996 06...	1045	512	258	5.0
DEC 12...	1120	85	419	2.0	29...	1400	311	295	11.0
JAN 1996 23...	1440	81	401	0.0	JUN 20...	0900	437	211	7.5
FEB 27...	1415	68	423	0.5	JUL 10...	1340	276	265	15.0
APR 15...	1600	185	404	9.5	AUG 19...	1600	85	370	18.0
09174600 SAN MIGUEL RIVER AT BROOKS BRIDGE NEAR NUCLA, CO (LAT 38 14 39N LONG 108 30 05W)									
OCT 1995 10...	1530	148	404	12.5	MAY 1996 07...	0830	690	264	8.5
DEC 13...	0840	99	443	2.5	29...	1545	257	352	16.5
JAN 1996 23...	1615	110	423	0.0	JUN 18...	1730	352	230	18.0
FEB 27...	1620	87	434	1.0	JUL 10...	1735	179	316	25.0
APR 15...	1800	274	342	11.0	AUG 06...	2035	6.3	560	22.5
18...	0715	545	311	6.5	20...	1530	2.8	665	13.5
					29...	1400	25	430	25.0
09237450 YAMPA RIVER ABOVE STAGECOACH RESERVOIR, CO (LAT 40 16 09N LONG 106 52 49W)									
NOV 1995 30...	1125	76	355	0.0	MAY 1996 07...	1405	285	390	10.0
DEC 06...	1035	78	387	1.0	29...	1340	307	406	11.5
FEB 1996 15...	1120	77	292	0.0	JUL 08...	1425	137	481	18.5
MAR 28...	0945	63	456	2.5	AUG 15...	0800	68	446	12.5
APR 10...	0655	498	195	1.0					
09237500 YAMPA RIVER BELOW STAGECOACH RESERVOIR, CO (LAT 40 17 15N LONG 106 49 33W)									
NOV 1995 30...	1045	55	415	3.0	MAY 1996 07...	1515	331	399	7.0
DEC 06...	1300	105	--	--	29...	1455	327	372	11.0
FEB 1996 15...	1245	88	--	3.0	JUL 08...	1515	137	377	18.0
MAR 28...	1105	92	414	3.5	AUG 13...	0920	101	381	17.5
APR 12...	1215	224	420	2.5					

## SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

## MISCELLANEOUS STATION ANALYSES--Continued

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	
09238900 FISH CREEK AT UPPER STATION NEAR STEAMBOAT SPRINGS, CO (LAT 40 28 30N LONG 106 47 11W)										
OCT 1995 02...	1355	14	31	5.5	JUN 1996 06...	1155	438	15	4.5	
DEC 06...	1135	12	32	1.0	JUL 17...	1140	37	21	14.0	
FEB 1996 26...	1010	6.4	25	1.0	AUG 14...	1530	1.8	29	18.0	
09239500 YAMPA RIVER AT STEAMBOAT SPRINGS, CO (LAT 40 29 01N LONG 106 49 54W)										
NOV 1995 30...	1230	154	279	1.5	MAY 1996 08...	1000	1910	174	8.0	
FEB 1996 26...	0855	111	302	0.5	JUN 06...	0845	3190	76	7.5	
MAR 28...	1310	323	202	5.0	JUL 09...	1220	578	129	16.5	
APR 01...	0945	336	285	1.5	JUL 15...	0825	281	158	14.0	
09...	1630	1430	193	3.0	AUG 14...	1435	118	285	20.5	
09243700 MIDDLE CREEK NEAR OAK CREEK, CO (LAT 40 23 08N LONG 106 59 33W)										
OCT 1995 02...	1620	0.64	698	15.0	MAY 1996 07...	1130	75	400	9.5	
DEC 01...	1125	0.80	766	0.0	JUL 29...	1035	16	558	10.0	
FEB 1996 08...	1200	0.50	824	0.5	AUG 08...	0955	1.9	686	17.5	
					AUG 15...	1010	5.4	417	16.5	
09243800 FOIDEL CREEK NEAR OAK CREEK, CO (LAT 40 20 45N LONG 107 05 04W)										
OCT 1995 02...	1530	0.89	3150	14.5	MAY 1996 07...	1250	23	2180	13.5	
DEC 01...	1250	0.93	2870	0.0	JUL 29...	1230	9.8	2760	14.5	
FEB 1996 08...	1410	0.66	3010	0.5	JUL 08...	1230	2.1	3190	25.0	
					AUG 15...	0950	0.70	3460	14.0	
09243900 FOIDEL CREEK AT MOUTH, NEAR OAK CREEK, CO (LAT 40 23 25N LONG 106 59 39W)										
OCT 1995 02...	1655	1.4	3010	11.5	MAY 1996 07...	1040	32	2380	11.0	
DEC 01...	1030	2.2	3330	0.0	JUL 29...	1135	18	2510	13.0	
FEB 1996 08...	1200	1.0	3040	0.0	JUL 08...	1100	4.8	3100	20.0	
MAR 13...	1015	2.6	3100	1.0	JUL 15...	1025	0.93	2940	19.0	
					AUG 15...	1155	0.01	2300	20.0	
					SEP 11...	1200	0.45	3300	15.0	
09251100 YAMPA RIVER ABV. LITTLE SNAKE R. NR. MAYBELL, CO (LAT 40 27 39N LONG 108 25 30W)										
JUL 1996 19...	1005	994	307	22.0	SEP 1996 11...	1155	132	663	18.5	
29...	1026	550	379	18.5						
AUG 07...	0950	497	369	17.0						
09253000 LITTLE SNAKE RIVER NEAR SLATER, CO (LAT 40 59 58N LONG 107 08 34W)										
OCT 1995 24...	1150	41	198	0.5	APR 1996 29...	1120	370	200	2.0	
JAN 1996 29...	1310	30	277	0.0	JUL 16...	1340	95	104	14.0	
MAR 26...	0951	45	209	0.0	JUL 14...	1035	35	155	17.0	

## MISCELLANEOUS STATION ANALYSES--Continued

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT- PER SECOND	TEMPER- ATURE WATER (DEG C)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT- PER SECOND	TEMPER- ATURE WATER (DEG C)
09255000 SLATER FORK NEAR SLATER, CO (LAT 40 58 54N LONG 107 22 58W)									
OCT 1995 24...	1120	14	261	1.0	JUN 1996 05...	1050	356	82	9.5
JAN 1996 29...	1120	18	235	0.0	17...	1045	176	109	11.5
MAR 26...	1106	24	293	0.5	JUL 16...	1210	14	279	21.0
APR 29...	1050	136	196	0.5	AUG 14...	0920	6.2	335	19.5
09304500 WHITE RIVER NEAR MEEKER, CO (LAT 40 02 01N LONG 107 51 42W)									
OCT 1995 02...	1450	491	450	11.0	JUN 1996 11...	1310	2080	228	10.0
NOV 29...	1351	407	466	3.0	JUL 15...	0835	588	426	13.0
FEB 1996 29...	1330	282	467	1.5	AUG 30...	0931	231	558	12.0
MAR 25...	1710	351	644	5.0	SEP 28...	0809	431	458	8.0
MAY 06...	1429	1510	261	10.0					
18...	0903	3270	231	10.0					
09339900 EAST FORK SAN JUAN RIVER ABOVE SAND CREEK, NR PAGOSA SPGS, CO (LAT 37 23 23N LONG 106 50 26W)									
OCT 1995 03...	1245	40	135	9.0	MAY 1996 09...	1340	279	87	10.5
MAR 1996 22...	1425	25	152	9.0	JUL 15...	1230	351	83	9.0
					JUL 16...	1100	44	120	14.0
09342500 SAN JUAN RIVER AT PAGOSA SPRINGS, CO (LAT 37 15 58N LONG 107 00 37W)									
OCT 1995 03...	1040	146	121	7.0	MAY 1996 09...	1145	1150	67	6.0
NOV 01...	1540	81	161	7.5	JUN 15...	1315	1330	56	8.0
MAR 1996 27...	1010	94	147	4.0	JUL 11...	0900	256	105	10.5
					JUL 16...	1230	103	157	20.0
09346000 NAVAJO RIVER AT EDITH, CO (LAT 37 00 10N LONG 106 54 25W)									
OCT 1995 03...	1500	83	203	12.5	MAY 1996 09...	1550	95	166	15.5
MAR 1996 27...	1220	53	261	7.5					
09346400 SAN JUAN RIVER NEAR CARRACAS, CO (LAT 37 00 49N LONG 107 18 42W)									
OCT 1995 06...	1320	212	252	10.0	MAY 1996 08...	1325	1370	93	11.5
DEC 08...	1310	132	392	4.0	JUL 02...	1225	290	264	21.5
MAR 1996 29...	1015	195	330	7.0	25...	0715	126	318	18.5
09349800 PIEDRA RIVER NEAR ARBOLES, CO (LAT 37 05 18N LONG 107 23 50W)									
OCT 1995 06...	1400	123	325	10.5	MAY 1996 08...	1105	866	128	9.5
DEC 11...	1445	48	544	4.0	JUN 11...	1215	117	303	18.5
MAR 1996 27...	1530	100	399	11.5	JUL 25...	1115	60	410	20.0
09354500 LOS PINOS RIVER AT LA BOCA, CO (LAT 37 00 34N LONG 107 35 56W)									
OCT 1995 10...	1110	132	215	9.0	MAY 1996 17...	1000	91	258	15.5
APR 1996 01...	1440	53	242	15.0					

## SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

## MISCELLANEOUS STATION ANALYSES--Continued

DATE	TIME	DIS- CHARGE, INST., CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	DIS- CHARGE, INST., CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
09355000 SPRING CREEK AT LA BOCA, CO (LAT 37 00 40N LONG 107 35 47W)									
OCT 1995 10...	1255	50	281	9.5	MAY 1996 17...	1130	35	384	16.5
MAR 1996 29...	1310	2.4	1110	0.0					
09358000 ANIMAS RIVER AT SILVERTON, CO (LAT 37 48 40N LONG 107 39 32W)									
OCT 1995 17...	1020	51	302	3.0	MAY 1996 13...	1340	559	129	8.0
NOV 29...	1240	27	357	1.0	21...	1020	644	110	4.0
APR 1996 01...	1250	34	410	6.5	AUG 14...	1300	39	294	12.0
09...	1500	64	324	9.0					
09358550 CEMENT CREEK AT SILVERTON, CO (LAT 37 49 11N LONG 107 39 47W)									
OCT 1995 17...	0930	18	1080	3.5	MAY 1996 13...	1355	190	246	7.0
NOV 29...	1315	16	1190	4.5	21...	1500	189	235	9.0
APR 1996 01...	1345	20	1080	9.5	AUG 14...	1215	17	998	11.0
09...	1600	50	670	9.0	SEP 18...	0900	19	--	--
09359010 MINERAL CREEK AT SILVERTON, CO (LAT 37 48 10N LONG 107 40 20W)									
OCT 1995 17...	1120	40	404	4.0	MAY 1996 13...	1205	418	132	6.5
NOV 30...	1255	30	502	1.0	21...	1315	419	122	8.0
APR 1996 01...	1140	22	563	4.5	AUG 14...	1140	37	408	12.0
09...	1400	58	370	7.0					
09361500 ANIMAS RIVER AT DURANGO, CO (LAT 37 16 45N LONG 107 52 47W)									
JAN 1996 29...	1500	177	615	3.5	MAY 1996 22...	1335	2850	155	8.5
MAR 28...	0900	229	555	6.5	AUG 30...	1045	230	705	17.0
APR 29...	1610	964	268	6.5	SEP 25...	1410	378	486	14.0
09362550 WILSON GULCH NEAR DURANGO, CO (LAT 37 13 37N LONG 107 50 31W)									
NOV 1995 01...	1445	1.7	668	11.0	MAY 1996 28...	1345	1.0	532	15.5
FEB 1996 13...	1455	1.5	690	9.0	AUG 09...	1245	0.78	660	17.5
MAR 27...	1420	0.83	650	12.5					
09371000 MANCOS RIVER NEAR TOWAOC, CO (LAT 37 01 39N LONG 108 44 27W)									
DEC 1995 05...	1400	14	1820	5.5	APR 1996 04...	1255	15	1990	11.5
JAN 1996 11...	1145	11	1900	0.0	MAY 16...	1505	0.11	2060	27.0
26...	1255	19	1980	0.0	JUL 19...	1305	17	1510	26.5
FEB 15...	1430	33	1850	8.5					

**LA PLATA COUNTY****371127107484801 NB03400915BDD1 SIMON**

LOCATION.--Lat 37°11'27", long 107°48'48", in SE<sup>1/4</sup>NW<sup>1/4</sup> sec.15, T.34 N., R.9 W., La Plata County, Hydrologic Unit 14080104, 0.5 mi southwest of Pastorius Reservoir, 7.5 mi southeast of Durango, CO. Owner: Amoco Oil.

AQUIFER.--Animas Formation of Paleocene-Upper Cretaceous age. Aquifer code: 125ANMS.

WELL CHARACTERISTICS.--Drilled, observation well, diameter 3 in., depth 300 ft.

INSTRUMENTATION.--Water level recorder.

DATUM.--Elevation of land-surface datum is 6845 ft above sea level from topographic map. Measuring point: screw in recorder shelf above well casing, 3.00 ft above land-surface datum.

REMARKS.--Daily record is good.

PERIOD OF RECORD.--June 1995 to September 1996.

EXTREMES FOR CURRENT PERIOD.--June to September 1995: Highest recorded water level 97.80 ft below land-surface datum, Sept. 29; lowest recorded water level 99.43 ft below land-surface datum, Jun. 26

Water year 1996: Highest recorded water level 97.73 ft below land-surface datum, Oct. 12; lowest recorded water level 100.27 ft below land-surface datum, May 17-19.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	99.29	98.66	97.88	
2	---	---	---	---	---	---	---	---	99.24	98.63	97.88	
3	---	---	---	---	---	---	---	---	99.21	98.59	97.88	
4	---	---	---	---	---	---	---	---	99.20	98.54	97.88	
5	---	---	---	---	---	---	---	---	99.17	98.50	97.88	
6	---	---	---	---	---	---	---	---	99.15	98.46	97.88	
7	---	---	---	---	---	---	---	---	99.12	98.43	97.87	
8	---	---	---	---	---	---	---	---	99.11	98.37	97.87	
9	---	---	---	---	---	---	---	---	99.08	98.33	97.88	
10	---	---	---	---	---	---	---	---	99.06	98.30	97.87	
11	---	---	---	---	---	---	---	---	99.04	98.26	97.87	
12	---	---	---	---	---	---	---	---	99.03	98.22	97.87	
13	---	---	---	---	---	---	---	---	99.03	98.18	97.88	
14	---	---	---	---	---	---	---	---	99.01	98.14	97.88	
15	---	---	---	---	---	---	---	---	98.99	98.11	97.87	
16	---	---	---	---	---	---	---	---	98.99	98.08	97.88	
17	---	---	---	---	---	---	---	---	98.96	98.06	97.87	
18	---	---	---	---	---	---	---	---	98.95	98.03	97.87	
19	---	---	---	---	---	---	---	---	98.95	98.02	97.87	
20	---	---	---	---	---	---	---	---	98.94	98.00	97.86	
21	---	---	---	---	---	---	---	---	98.93	97.98	97.87	
22	---	---	---	---	---	---	---	---	98.90	97.96	97.86	
23	---	---	---	---	---	---	---	---	98.89	97.94	97.86	
24	---	---	---	---	---	---	---	---	98.87	97.93	97.86	
25	---	---	---	---	---	---	---	---	98.86	97.92	97.86	
26	---	---	---	---	---	---	---	---	98.84	97.91	97.85	
27	---	---	---	---	---	---	---	99.40	98.82	97.90	97.85	
28	---	---	---	---	---	---	---	99.38	98.80	97.89	97.84	
29	---	---	---	---	---	---	---	99.34	98.77	97.88	97.82	
30	---	---	---	---	---	---	---	99.32	98.73	97.87	97.83	
31	---	---	---	---	---	---	---	---	98.71	97.87	---	
MEAN	---	---	---	---	---	---	---	---	98.99	98.16	97.87	
MAX	---	---	---	---	---	---	---	---	99.29	98.66	97.88	
MIN	---	---	---	---	---	---	---	---	98.71	97.87	97.82	

## GROUND-WATER LEVELS

## LA PLATA COUNTY

371127107484801 NB03400915BDD1 SIMON--Continued

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97.82	98.33	98.90	99.21	99.52	99.81	100.01	100.18	100.02	99.18	98.73	98.47
2	97.82	98.37	98.91	99.22	99.54	99.82	100.02	100.18	100.00	99.16	98.72	98.47
3	97.80	98.39	98.94	99.22	99.56	99.83	100.03	100.19	99.97	99.14	98.69	98.46
4	97.78	98.41	98.93	99.24	99.56	99.83	100.04	100.20	99.95	99.11	98.68	98.47
5	97.79	98.44	98.95	99.25	99.57	99.84	100.05	100.20	99.93	99.09	98.67	98.47
6	97.77	98.45	98.96	99.26	99.58	99.86	100.04	100.21	99.91	99.07	98.65	98.47
7	97.76	98.50	98.96	99.27	99.58	99.86	100.05	100.21	99.88	99.05	98.64	98.47
8	97.76	98.51	98.99	99.28	99.60	99.87	100.06	100.22	99.86	99.03	98.62	98.47
9	97.76	98.51	99.01	99.29	99.61	99.88	100.06	100.23	99.83	99.01	98.60	98.48
10	97.76	98.56	99.01	99.29	99.62	99.88	100.06	100.24	99.81	98.99	98.58	98.48
11	97.76	98.60	99.02	99.31	99.63	99.88	100.07	100.23	99.78	98.98	98.57	98.49
12	97.75	98.60	99.03	99.32	99.64	99.89	100.07	100.24	99.76	98.97	98.56	98.49
13	97.77	98.63	99.04	99.32	99.65	99.90	100.08	100.24	99.73	98.95	98.55	98.48
14	97.78	98.64	99.06	99.34	99.66	99.91	100.10	100.25	99.70	98.94	98.54	98.48
15	97.78	98.66	99.06	99.35	99.68	99.91	100.09	100.25	99.67	98.92	98.52	98.48
16	97.77	98.68	99.05	99.34	99.69	99.92	100.09	100.25	99.64	98.91	98.52	98.48
17	97.80	98.71	99.07	99.33	99.69	99.93	100.10	100.26	99.61	98.90	98.51	98.49
18	97.82	98.71	99.09	99.39	99.70	99.94	100.11	100.26	99.57	98.89	98.51	98.51
19	97.86	98.73	99.10	99.38	99.71	99.94	100.12	100.25	99.54	98.88	98.51	98.53
20	97.88	98.76	99.10	99.41	99.73	99.95	100.12	100.25	99.51	98.87	98.51	98.56
21	97.88	98.77	99.11	99.41	99.73	99.95	100.13	100.23	99.48	98.86	98.50	98.60
22	97.93	98.78	99.12	99.41	99.74	99.95	100.14	100.22	99.44	98.85	98.51	98.65
23	98.00	98.81	99.13	99.44	99.76	99.95	100.14	100.20	99.41	98.84	98.50	98.70
24	98.04	98.82	99.14	99.45	99.75	99.97	100.13	100.18	99.37	98.83	98.50	98.74
25	98.07	98.82	99.15	99.44	99.76	99.98	100.15	100.16	99.34	98.82	98.49	98.77
26	98.09	98.82	99.15	99.47	99.77	99.99	100.15	100.14	99.31	98.81	98.48	98.81
27	98.15	98.85	99.16	99.47	99.79	99.99	100.15	100.12	99.28	98.81	98.49	98.87
28	98.20	98.87	99.16	99.48	99.80	99.99	100.17	100.11	99.26	98.79	98.48	98.91
29	98.24	98.88	99.18	99.49	99.80	100.00	100.17	100.08	99.23	98.78	98.48	98.95
30	98.27	98.89	99.19	99.50	---	100.01	100.17	100.06	99.21	98.76	98.47	98.99
31	98.29	---	99.18	99.51	---	100.01	---	100.04	---	98.75	98.47	---
MEAN	97.90	98.65	99.06	99.36	99.67	99.92	100.10	100.20	99.63	98.93	98.56	98.59
MAX	98.29	98.89	99.19	99.51	99.80	100.01	100.17	100.26	100.02	99.18	98.73	98.99
MIN	97.75	98.33	98.90	99.21	99.52	99.81	100.01	100.04	99.21	98.75	98.47	98.46

## **LA PLATA COUNTY**

371422107473301 NB03400807BBA1 ROYCE

LOCATION--Lat 37°14'22", long 107°47'33", in NW<sup>1/4</sup>NW<sup>1/4</sup> sec.7, T.34 N., R.8 W., La Plata County, Hydrologic Unit 14080104, 0.5 mi north of the Florida Mesa School, 7.0 mi southeast of Durango, CO. Owner: Jo Ann Royce.

AQUIFER--Animas Formation of Paleocene-Upper Cretaceous age. Aquifer code: 125ANMS.

WELL CHARACTERISTICS.--Drilled, unused well, diameter 3 in., depth 110 ft.

## INSTRUMENTATION.--Water level recorder.

DATUM.--Elevation of land-surface datum is 7000 ft above sea level from topographic map. Measuring point: screw in recorder shelf above well casing, 3.00 ft above land-surface datum.

REMARKS.--Daily record is good.

PERIOD OF RECORD.--June 1995 to September 1996.

EXTREMES FOR CURRENT PERIOD.--June to September 1995: Highest recorded water level 21.57 ft below land-surface datum, Sept. 11; lowest recorded water level 26.44 ft (measured) below land-surface datum, June 23.

Water year 1996: Highest recorded water level 21.69 ft below land-surface datum, Dec. 7; lowest recorded water level 28.74 ft below land-surface datum, May 20.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

## GROUND-WATER LEVELS

## LA PLATA COUNTY

371422107473301 NB03400807BBA1 ROYCE--Continued

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	22.76	23.98	25.04	26.08	27.22	28.25	26.33	25.33	24.14
2	---	---	---	22.83	24.02	25.08	26.09	27.26	28.27	26.27	25.31	24.12
3	---	---	---	22.87	24.09	25.13	26.13	27.32	28.24	26.21	25.28	24.08
4	---	---	---	22.91	24.14	25.15	26.18	27.47	28.20	26.15	25.24	24.06
5	---	---	---	22.96	24.18	25.15	26.21	27.66	28.16	26.10	25.23	24.03
6	---	---	---	23.03	24.21	25.17	26.24	27.82	28.12	26.05	25.19	24.00
7	---	---	21.71	23.08	24.24	25.24	26.26	27.94	28.07	26.00	25.15	23.98
8	---	---	21.76	23.12	24.28	25.27	26.31	28.03	28.02	25.95	25.10	23.96
9	---	---	21.82	23.17	24.32	25.32	26.36	28.11	27.99	25.87	25.05	23.93
10	---	---	21.85	23.19	24.37	25.36	26.38	28.21	27.93	25.83	24.98	23.91
11	---	---	21.89	23.24	24.42	25.37	26.41	28.28	27.89	25.81	24.95	23.89
12	---	---	21.93	23.28	24.45	25.39	26.45	28.34	27.84	25.77	24.92	23.84
13	---	---	21.96	23.30	24.47	25.42	26.45	28.38	27.81	25.74	24.89	23.81
14	---	---	22.00	23.35	24.50	25.46	26.52	28.39	27.74	25.70	24.85	23.74
15	---	---	22.05	23.40	24.54	25.50	26.56	28.42	27.67	25.66	24.81	23.69
16	---	---	22.05	23.40	24.58	25.52	26.58	28.44	27.59	25.63	24.78	23.68
17	---	---	22.09	23.33	24.61	25.55	26.62	28.47	27.52	25.60	24.75	23.66
18	---	---	22.15	23.42	24.63	25.62	26.67	28.54	27.47	25.57	24.71	23.63
19	---	---	22.20	23.44	24.67	25.64	26.72	28.70	27.40	25.54	24.69	23.61
20	---	---	22.24	23.51	24.70	25.67	26.75	28.73	27.31	25.52	24.66	23.59
21	---	---	22.29	23.56	24.73	25.69	26.79	28.67	27.20	25.50	24.63	23.59
22	---	---	22.35	23.58	24.73	25.71	26.87	28.59	27.09	25.49	24.60	23.58
23	---	---	22.40	23.65	24.80	25.72	26.93	28.52	27.01	25.48	24.56	23.58
24	---	---	22.46	23.70	24.82	25.77	26.95	28.47	26.93	25.47	24.48	23.57
25	---	---	22.50	23.71	24.84	25.82	26.98	28.42	26.84	25.46	24.42	23.55
26	---	---	22.54	23.78	24.86	25.87	27.04	28.38	26.75	25.44	24.38	23.54
27	---	---	22.58	23.83	24.92	25.91	27.06	28.33	26.62	25.43	24.35	23.58
28	---	---	22.61	23.85	24.97	25.92	27.11	28.33	26.52	25.42	24.31	23.60
29	---	---	22.64	23.90	25.00	25.94	27.17	28.31	26.46	25.39	24.26	23.59
30	---	---	22.68	23.95	---	26.00	27.18	28.30	26.40	25.37	24.22	23.59
31	---	---	22.70	23.96	---	26.04	---	28.27	---	25.35	24.18	---
MEAN	---	---	23.39	24.52	25.53	26.60	28.20	27.51	25.71	24.78	23.77	
MAX	---	---	23.96	25.00	26.04	27.18	28.73	28.27	26.33	25.33	24.14	
MIN	---	---	22.76	23.98	25.04	26.08	27.22	26.40	25.35	24.18	23.54	

## UPPER GUNNISON RIVER WATER-QUALITY STUDY

A series of water-quality samples and discharge measurements were collected beginning April 15, 1995 to develop a long term data base for the East, Slate, and Upper Gunnison Rivers. The study purpose is to determine the present water-quality and establish a data base for determination of the effects of increased development in the drainages. The drainage area considered for the study is 2,073 mi<sup>2</sup> and the mainstem reach is 43 mi upstream from Crested Butte, CO to Gunnison, CO. Samples collected at gaging stations 09110000, Taylor River at Almont, CO; 09111500, Slate River at Crested Butte, CO; 09112200 East River below Cement Creek near Crested Butte, CO; 09112500, East River at Almont, CO; 09114500, Gunnison River near Gunnison, CO; 09119000, Tomichi Creek at Gunnison, CO; are published elsewhere in this report.

## SLATE RIVER DRAINAGE

## 385429107013000 SLATE RIVER ABOVE OH-BE-JOYFUL CREEK, NEAR CRESTED BUTTE, CO

## WATER-QUALITY RECORDS

LOCATION.--Lat 38°54'29", long 107°01'30", in SW<sup>1/4</sup>NE<sup>1/4</sup> sec.20, T.13 S., R.86 W., Gunnison County, Hydrologic Unit 14020001, .2 mi upstream from confluence with Oh-Be-Joyful Creek, and 3.4 mi northwest of Crested Butte.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--June 1995 to current year.

REMARKS.--Previous to June 1995, no water-quality data at this site.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-	SPE-	PH				COLI-	HARD-	CALCIUM	MAGNE-
		CHARGE , INST.	CIFIC CUBIC FEET SECOND	WATER WHOLE FIELD DUCT- ANCE	TEMPER- ATURE ARD UNITS)	TUR- BID- ITY (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	0.7 UM-MF (COLS./ 100 ML)	NESS TOTAL (MG/L AS CACO3)	DIS- SOLVED (MG/L AS CA)	SOLUM, DIS- SOLVED (MG/L AS MG)
OCT 24...	1205	8.7	125	7.6	2.0	0.3	9.7	K1	55	19	1.8
DEC 05...	1325	7.4	144	7.2	1.5	0.1	9.9	<1	59	20	2.1
MAY 21...	1330	262	83	8.0	6.0	4.3	8.6	<1	35	12	1.3
JUL 19...	1200	54	76	7.8	10.0	0.5	8.3	<1	31	11	0.95
AUG 07...	1200	21	94	8.2	11.5	--	8.0	17	43	15	1.3
SEP 10...	1315	8.5	117	8.0	13.0	0.2	7.6	K3	49	17	1.6
<hr/>											
DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB DIS- SOLVED (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDs, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L AS AC-FT)	SOLIDs, DIS- SOLVED (TONS PER DAY)	
OCT 24...	1.2	0.1	0.4	35	21	0.3	0.2	4.8	70	0.09	1.65
DEC 05...	1.3	0.1	0.3	35	27	0.2	<0.1	5.0	77	0.11	1.54
MAY 21...	0.9	0.1	0.3	27	11	<0.1	<0.1	5.2	47	0.07	33.2
JUL 19...	0.7	0.0	0.3	23	12	<0.1	<0.1	3.5	42	0.06	6.12
AUG 07...	0.8	0.0	0.3	27	16	<0.1	<0.1	4.0	54	0.08	3.06
SEP 10...	1.1	0.1	0.4	33	20	<0.1	<0.1	5.3	65	0.09	1.49

K-Based on non-ideal colony count.

## GUNNISON RIVER BASIN

## UPPER GUNNISON RIVER WATER-QUALITY STUDY

385429107013000 SLATE RIVER ABOVE OH-BE-JOYFUL CREEK, NEAR CRESTED BUTTE, CO--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	PHOS-	PHORUS	PHORUS
	GEN, NITRITE	GEN, NO <sub>2</sub> +NO <sub>3</sub>	AMMONIA	GEN, AM- MONIA +	GEN, AM- MONIA +			
DIS-	DIS-	DIS-	ORGANIC	ORGANIC	PHOS- PHORUS	DIS-	DIS-	DIS-
SOLVED	SOLVED	SOLVED	TOTAL	TOTAL	TOTAL	SOLVED	SOLVED	SOLVED
(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS P)	(MG/L AS P)	(MG/L AS P)	(MG/L AS P)
OCT 24...	0.01	0.1	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01
DEC 05...	<0.01	0.1	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01
MAY 21...	<0.01	0.13	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01
JUL 19...	<0.01	0.14	0.03	<0.2	<0.2	<0.01	0.01	<0.01
AUG 07...	<0.01	0.13	0.02	<0.2	<0.2	<0.01	<0.01	<0.01
SEP 10...	<0.01	0.09	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01

DATE	ALUM- INUM,	CADMIUM	COPPER,	IRON,	LEAD,	TOTAL	ZINC,	MANGA-
	DIS-	DIS-	DIS-	TOTAL	LEAD,	RECOV-	DIS-	NESE,
SOLVED	SOLVED	SOLVED	ERABLE	SOLVED	ERABLE	SOLVED	SOLVED	ZINC,
(UG/L AS AL)	(UG/L AS CD)	(UG/L AS CU)	(UG/L AS FE)	(UG/L AS PB)	(UG/L AS MN)	(UG/L AS ZN)	(UG/L AS MN)	(UG/L AS ZN)
OCT 24...	<10	<1	<1	70	<1	<10	<10	<10
MAY 21...	20	<1	<1	930	<1	20	4	

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-	SEDI-	DIS-	SEDI-	DIS-	SEDI-	
		CHARGE, INST.	MENT, CUBIC FEET					
PER SECOND	PER SECOND	PER SECOND	PER SECOND	PER SECOND	PER SECOND	PER SECOND	PER SECOND	DIS- CHARGE, INST. CUBIC FEET
PER SECOND	PER SECOND	PER SECOND	PER SECOND	PER SECOND	PER SECOND	PER SECOND	PER SECOND	PER SECOND
OCT 24...	1205	8.7	1	0.02				
MAY 21...	1330	262	30	21	JUL 19...	1200	54	2 0.32
					SEP 10...	1315	8.5	0.4 0.01

## UPPER GUNNISON RIVER WATER-QUALITY STUDY

385426107013400 OH-BE-JOYFUL CREEK ABOVE SLATE RIVER, NEAR CRESTED BUTTE, CO.

## WATER-QUALITY RECORDS

LOCATION.--Lat 38°54'26", long 107°01'34", in SW<sup>1/4</sup>NE<sup>1/4</sup> sec.20, T.13 S., R.86 W., Gunnison County, Hydrologic Unit 14020001, 0.1 mi upstream from mouth, and 3.4 mi northwest of Crested Butte.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--August 1995 to current year.

REMARKS.--No previous water-quality data at this site before August 1995.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT- PER SECOND	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY	OXYGEN, SOLVED (NTU)	COLI- FORM, FECAL, 0.7 UM-MF (MG/L)	HARD- NESS TOTAL (MG/L)	CALCIUM DIS- AS (MG/L)	MAGNE- SIUM, DIS- SOLVED (MG/L)
		(US/CM)	(US/CM)					(COLS./ 100 ML)	CACO <sub>3</sub> )	AS (MG/L)	AS MG
OCT 24...	1430	15	64	7.8	0.0	0.3	10.6	K2	31	11	0.92
MAY 21...	1615	340	45	7.8	4.5	0.7	9.6	<1	19	6.6	0.60
		SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SORP- TION RATIO	ALKA- LINITY LAB SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS CACO <sub>3</sub> )	CHLO- RIDE, DIS- SOLVED (MG/L AS SO <sub>4</sub> )	FLUO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SIO <sub>2</sub> )	SOLID <sub>S</sub> , SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L AS SOLVED (TONS PER AC-FT))	SOLID <sub>S</sub> , DIS- SOLVED (TONS PER DAY))	SOLID <sub>S</sub> , DIS- SOLVED (TONS PER DAY))
OCT 24...	1.1	0.1	0.3	25	7.4	0.3	0.2	3.5	40	0.05	1.61
MAY 21...	0.7	0.1	0.3	16	4.3	0.1	<0.1	4.0	27	0.04	24.6
		NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO <sub>2</sub> +NO <sub>3</sub> DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)
OCT 24...	0.01	0.07	<0.015	<0.2	<0.2	<0.2	<0.01	<0.01	<0.01	<0.01	<0.01
MAY 21...	<0.01	0.11	<0.015	<0.2	<0.2	<0.2	<0.01	<0.01	<0.01	<0.01	<0.01
		ALUM- INUM, DIS- SOLVED (UG/L AS AL)	CADMIUM DIS- SOLVED (UG/L AS CD)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	ZINC, DIS- SOLVED (UG/L AS ZN)			
OCT 24...	20	1.0	2	50	3	20	120				
MAY 21...	60	<1.0	4	100	6	20	92				

K-Based on non-ideal colony count.

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SEDI- MENT, DIS- CHARGE, SUS- SUS-	
		PER SECOND	PENDED (MG/L)	PENDED (T/DAY)
MAY 21...	1615	340	5	4.2

## GUNNISON RIVER BASIN

## UPPER GUNNISON RIVER WATER-QUALITY STUDY

385240106583600 SLATE RIVER ABOVE COAL CREEK, NEAR CRESTED BUTTE, CO

## WATER-QUALITY RECORDS

LOCATION.--Lat 38°52'40", long 106°58'36", in SE<sup>1/4</sup>NE<sup>1/4</sup> sec.35, T.13 S., R.86 W., Gunnison County, Hydrologic Unit 14020001, 0.5 mi upstream from confluence with Coal Creek, and 0.6 mi northwest of Crested Butte.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--April 1995 to current year.

REMARKS.--No water-quality data at this site before April 1995.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT-	PH WATER WHOLE FIELD	TEMPER- (STAND- ARD UNITS)	TUR- ATURE WATER (DEG C)	OXYGEN, BID- ITY (NTU)	COLI- FORM, FECAL, 0.7	HARD- NESS TOTAL (MG/L 100 ML)	CALCIUM SOLVED (MG/L AS CACO3)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	
OCT 23...	1535	24		123	7.2	5.5	0.3	8.7	K1	51	17	2.0
DEC 05...	1535	13		130	7.2	3.0	0.1	9.1	<1	54	18	2.3
JAN 17...	1600	8.1		132	7.6	0.5	--	8.5	<1	64	21	2.7
FEB 20...	1500	8.9		142	7.4	0.5	--	9.3	K1	64	21	2.7
MAR 26...	0945	12		149	7.8	0.5	--	10.6	<1	66	22	2.8
MAY 20...	1640	561		73	7.8	8.5	3.4	8.1	<1	32	11	1.2
JUL 16...	0945	110		75	7.0	9.0	--	8.8	45	32	11	1.2
AUG 07...	0930	36		96	8.2	10.5	--	7.8	19	42	14	1.6
SEP 10...	1530	15		120	7.8	13.0	0.3	6.5	30	51	17	2.0
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DATE		SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB SOLVED AS CACO3)	SULFATE (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	
OCT 23...	1.7	0.1	0.4	37	18	0.2	0.2	4.9	67	0.09	4.29	
DEC 05...	1.8	0.1	0.5	39	21	0.2	<0.1	5.2	73	0.1	2.6	
JAN 17...	2.1	0.1	0.4	39	22	0.2	<0.1	5.5	78	0.11	1.69	
FEB 20...	2.0	0.1	0.5	44	22	0.2	<0.1	5.6	81	0.11	1.94	
MAR 26...	2.1	0.1	0.3	46	25	0.4	<0.1	5.6	86	0.12	2.89	
MAY 20...	0.90	0.1	0.4	25	9.4	0.2	<0.1	4.9	44	0.06	66.0	
JUL 16...	0.80	0.1	0.3	25	10	<0.1	<0.1	3.5	42	0.06	5.25	
AUG 07...	1.1	0.1	0.4	31	14	<0.1	<0.1	4.3	54	0.08	5.25	
SEP 10...	1.7	0.1	0.5	38	18	0.1	<0.1	5.7	68	0.09	2.84	

K-Based on non-ideal colony count.

## UPPER GUNNISON RIVER WATER QUALITY STUDY

385240106583600 SLATE RIVER ABOVE COAL CREEK, NEAR CRESTED BUTTE, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO <sub>2</sub> +NO <sub>3</sub> DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHORUS DIS- TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)
OCT 23...	0.01	0.09	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01
DEC 05...	<0.01	0.1	<0.015	<0.2	<0.2	<0.01	<0.01	0.01
JAN 17...	<0.01	0.1	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01
FEB 20...	<0.01	0.1	<0.015	<0.2	<0.2	<0.01	0.02	<0.01
MAR 26...	<0.01	0.1	<0.015	<0.2	<0.2	0.02	0.02	<0.01
MAY 20...	<0.01	0.12	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01
JUL 16...	<0.01	0.12	0.03	<0.2	<0.2	<0.01	<0.01	<0.01
AUG 07...	0.01	0.13	0.02	<0.2	<0.2	<0.01	<0.01	<0.01
SEP 10...	<0.01	0.1	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	CADMIUM DIS- SOLVED (UG/L AS CD)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL ERABLE (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, RECOV- ERABLE (UG/L AS MN)	ZINC, DIS- SOLVED (UG/L AS ZN)	
DEC 05...	<10	<1		1	50	<1	<10	30
MAR 26...	<10	<1		<1	90	<1	20	20
MAY 20...	40	<1		1	510	<1	20	28

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- SUS- PENDED (T/DAY)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- SUS- PENDED (MG/L)	
MAY 20...	1640	561	24	36	SEP 10...	1530	15	2	0.08
JUL 16...	0945	110	2	0.59					

## GUNNISON RIVER BASIN

## UPPER GUNNISON RIVER WATER QUALITY STUDY

385238106583700 COAL CREEK ABOVE SLATE RIVER, NEAR CRESTED BUTTE, CO

## WATER-QUALITY RECORDS

LOCATION.--Lat $38^{\circ}52'38''$ , long $106^{\circ}58'37''$ , in SW $1/4$ SW $1/4$  sec. 35, T.13 S. R.86 W., Gunnison County, Hydrologic Unit 14020001, 0.25 mile upstream from confluence with Slate River, and 0.2 mi north of Crested Butte.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--December 1995 to January 1996.

REMARKS.--No historical water-quality data at this site.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-	PH			COLI-	NITRO-	
		CHARGE, INST. CUBIC FEET	SPE- CIFIC DUCT- PER SECOND	WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	FORM, FECAL, DIS- UM-MF (COLS./ 100 ML)	GEN, NITRITE SOLVED (MG/L AS N)
JAN 18...	1020	4.3		161	7.3	0.0	11.5	K1 <0.01
		NITRO- GEN, NO <sub>2</sub> +NO <sub>3</sub>	NITRO- GEN, AMMONIA	NITRO- GEN, AM- MONIA +	NITRO- GEN, AM- MONIA +	PHOS- PHORUS	PHOS- PHORUS	PHOS- PHORUS
		DIS- SOLVED (MG/L AS N)	DIS- SOLVED (MG/L AS N)	ORGANIC TOTAL (MG/L AS N)	ORGANIC TOTAL (MG/L AS N)	PHORUS DIS. (MG/L AS P)	PHORUS TOTAL (MG/L AS P)	ORTHODIS- SOLVED (MG/L AS P)
JAN 18...	0.10	<0.015	<0.2	<0.2	<0.2	<0.01	<0.01	<0.01

K-Based on non-ideal colony count.

## MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-	SPE- CIFIC DUCT- PER SECOND	TEMPER- ATURE WATER (DEG C)
		CHARGE, INST. CUBIC FEET		
DEC 12...	1400	9.6		318

## UPPER GUNNISON RIVER WATER-QUALITY STUDY

384852106541500 SLATE RIVER ABOVE EAST RIVER, NEAR CRESTED BUTTE, CO

## WATER-QUALITY RECORDS

LOCATION.--Lat $38^{\circ}48'52''$ , long  $106^{\circ}54'15''$ , in NW $^{1/4}$ NW $^{1/4}$  sec. 28, T.14 S. R.85 W., Gunnison County, Hydrologic Unit 14020001, 100 ft upstream from confluence with East River, and 4.7 mi southeast of Crested Butte.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--April 1995 to current year.

REMARKS.--No water-quality data at this site before April 1995.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET	SPE-CIFIC DUCT- PER SECOND	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR-BID- WATER (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, UM-MF 5 DAY (COLS./ 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	
OCT 25...	1210	45		190	8.2	5.0	0.4	9.8	1.0	K7	83	27	3.8
DEC 06...	0840	34		188	7.8	1.0	0.3	12.2	0.2	K8	79	25	4.0
JAN 11...	0940	26		187	--	0.5	--	11.0	2.4	K1	85	27	4.3
FEB 22...	1045	34		201	7.4	1.0	--	11.4	--	K2	88	28	4.3
MAR 27...	0915	36		191	8.1	0.5	--	10.8	--	<1	84	27	4.1
MAY 22...	1415	1130		81	8.3	7.5	5.0	8.8	1.2	<1	34	11	1.7
JUL 18...	1330	112		122	8.1	12.5	--	7.8	0.8	K10	52	17	2.3
SEP 11...	0930	31		200	8.4	9.0	0.5	8.1	0.3	K5	90	29	4.2
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DATE		SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY SOLVED (MG/L AS CACO3)	SULFATE LAB DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLID(S) RESIDUE AT 180 DEG. C	SOLID(S), SUM OF CONSTITUENTS, DIS- SOLVED (TONS PER AC-FT)	SOLID(S), DIS- SOLVED (MG/L AC-FT)	
OCT 25...		4.0	0.2	0.7	65	27	0.9	0.3	6.9	--	110	0.15	
DEC 06...		4.6	0.2	0.7	64	26	1.4	0.3	6.9	--	108	0.15	
JAN 11...		5.8	0.3	0.8	69	25	1.5	0.3	7.6	--	115	0.16	
FEB 22...		6.7	0.3	0.9	69	29	2.4	0.2	7.4	--	122	0.17	
MAR 27...		5.9	0.3	0.7	65	27	2.6	0.3	7.1	--	114	0.15	
MAY 22...		1.8	0.1	0.5	29	8.9	0.3	<0.1	5.8	--	48	0.06	
JUL 18...		2.1	0.1	0.6	48	12	0.4	<0.1	5.4	--	69	0.09	
SEP 11...		4.3	0.2	0.8	77	21	1.1	0.2	7.4	112	115	0.15	
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DATE		SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	
OCT 25...		13.2	0.01	0.14	<0.015	<0.2	<0.2	<0.01	<0.01	0.01	--	--	
DEC 06...		9.99	<0.01	0.19	<0.015	<0.2	<0.2	<0.01	0.02	0.01	--	--	
JAN 11...		8.17	<0.01	0.39	<0.015	<0.2	<0.2	0.03	0.03	0.03	--	--	
FEB 22...		11.1	0.01	0.27	0.04	<0.2	<0.2	0.06	0.02	0.03	--	--	
MAR 27...		10.9	<0.01	<0.05	<0.015	<0.2	<0.2	0.04	0.02	<0.01	--	--	
MAY 22...		146	<0.01	0.07	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01	--	--	
JUL 18...		20.9	0.01	0.11	0.02	<0.2	<0.2	<0.01	<0.01	0.01	--	--	
SEP 11...		9.31	<0.01	0.1	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01	15	4	

K-Based on non-ideal colony count.

## GUNNISON RIVER BASIN

## **UPPER GUNNISON RIVER WATER-QUALITY STUDY**

**384852106541500 SLATE RIVER ABOVE EAST RIVER, NEAR CRESTED BUTTE, CO--Continued**

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

		DIS- CHARGE, INST. CUBIC FEET	SEDI- MENT, DIS- MENT, SUS-	SEDI- MENT, DIS- CHARGE, SUS-		DIS- CHARGE, INST. CUBIC FEET	SEDI- MENT, DIS- MENT, SUS-			
DATE	TIME	PER SECOND	PENDED (MG/L)	PENDED (T/DAY)		DATE	TIME	PER SECOND	PENDED (MG/L)	PENDED (T/DAY)
OCT 25...	1210	45	2	0.24	JUL 18...	1330	112	3	1.0	
MAY 22...	1415	1130	22	67	SEP 11...	0930	31	1	0.05	

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	PER SECOND	PENDED (MG/L)	SEDIMENT, CHARGE, INST. CUBIC FEET	SEDIMENT, CHARGE, DIS- SUS-
EP 20...	0845	76	1	0 . 2	

**UPPER GUNNISON RIVER WATER-QUALITY STUDY**  
**EAST RIVER DRAINAGE**  
**385609106575800 EAST RIVER BELOW GOTHIC, CO**  
**WATER-QUALITY RECORDS**

LOCATION.--Lat 38°56'09", long 106°57'58", in SE<sup>1/4</sup>SE<sup>1/4</sup> sec.11, T.13 S., R.86 W, Gunnison County, Hydrologic Unit 14020001, at county road bridge, 0.1 mi. east of Gothic, and 2.0 mi west of Mt. Crested Butte or 50 feet above diversion of Mt. Crested Butte Water Treatment plant, approximately 0.3 miles west of town of Mt. Crested Butte.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--April 1995 to current year.

REMARKS.--Previous to April 1995, no water-quality data at this site.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-	PH			OXYGEN,	COLI-	HARD-	CALCIUM	MAGNE-	SODIUM,	
		CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT-	WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)		FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)			SIUM, DIS- SOLVED (MG/L AS MG)	DIS- SOLVED (MG/L AS NA)	
OCT 23...	1330	26		262	8.2	1.0	10.3	K1	130	41	5.6	1.2
DEC 05...	0930	13		279	8.2	0.5	9.9	<1	140	44	6.1	1.2
JAN 19...	1030	e10		303	7.9	0.0	8.5	<1	150	50	7.0	1.6
FEB 29...	0915	e10		331	7.4	0.0	8.6	<1	160	51	7.1	1.8
MAR 29...	0900	e11		326	8.1	1.0	8.5	K1	160	51	7.2	1.9
MAY 21...	0855	316		170	8.3	3.0	9.3	K1	82	27	3.6	0.8
JUL 16...	1310	100		174	8.3	10.0	7.9	K4	82	27	3.6	0.8
SEP 10...	1015	23		256	8.6	8.0	8.6	K7	120	41	5.4	1.2
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DATE		SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB CACO <sub>3</sub> )	SULFATE DIS- SOLVED (MG/L AS SO <sub>4</sub> )	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO <sub>2</sub> )	SOLIDS, SUM OF TUENTS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)		
OCT 23...		0.0	0.5	92	41	0.2	0.2	4.4	150	0.20	10.6	
DEC 05...		0.0	0.5	94	46	0.2	<0.1	4.6	159	0.22	5.60	
JAN 19...		0.1	0.6	95	47	0.2	0.1	4.9	169	0.23	4.56	
FEB 29...		0.1	0.6	116	46	0.3	<0.1	5.1	182	0.25	4.91	
MAR 29...		0.1	0.6	116	53	0.4	<0.1	4.9	189	0.26	5.61	
MAY 21...		0.0	0.5	72	13	0.2	<0.1	4.3	93	0.13	79.5	
JUL 16...		0.0	0.5	67	18	<0.1	<0.1	3.5	--	--	--	
SEP 10...		0.0	0.6	93	36	0.1	<0.1	4.7	145	0.20	8.82	

e-Estimated.

K-Based on non-ideal colony count.

## UPPER GUNNISON RIVER WATER-QUALITY STUDY

## EAST RIVER DRAINAGE

385609106575800 EAST RIVER BELOW GOTHIC, CO--Continued

## WATER-QUALITY RECORDS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO <sub>2</sub> +NO <sub>3</sub> DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHORUS DIS. (MG/L AS P)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)
OCT 23...	0.02	0.08	<0.02	<0.2	<0.2	<0.01	<0.01	<0.01
DEC 05...	<0.01	0.12	<0.02	<0.2	<0.2	<0.01	<0.01	<0.01
JAN 19...	<0.01	0.12	<0.02	<0.2	<0.2	<0.01	<0.01	<0.01
FEB 29...	<0.01	0.10	0.02	<0.2	<0.2	0.02	<0.01	<0.01
MAR 29...	0.02	0.14	0.02	<0.2	<0.2	0.02	0.02	<0.01
MAY 21...	<0.01	0.13	<0.02	<0.2	<0.2	<0.01	<0.01	<0.01
JUL 16...	<0.01	0.14	0.03	<0.2	<0.2	0.01	<0.01	0.01
SEP 10...	<0.01	0.08	<0.02	<0.2	<0.2	<0.01	<0.01	<0.01

## UPPER GUNNISON RIVER WATER-QUALITY STUDY

385408106543600 EAST RIVER ABOVE CRESTED BUTTE, CO

## WATER-QUALITY RECORDS

LOCATION.--Lat 38°54'08", long 106°54'36", Gunnison County, Hydrologic Unit 14020001, 20 to 200 feet upstream from confluence with Brush Creek, and 4.2 mi northeast of Crested Butte.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--April 1995 to current year.

REMARKS.--No water-quality data at this site previous to April 1995.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-	CHARGE,	PH		COLI-	HARD-	MAGNE-			
		INST.	SPE-CIFIC	WATER	FIELD	TEMPER-ATURE	OXYGEN,	NESS	CALCIUM	SIUM,	SODIUM,
		CUBIC FEET	CON-DUCT-	(STAND-ARD)	DIS-WATER	SOLVED	0.7	TOTAL (MG/L)	DIS-SOLVED	DIS-SOLVED	DIS-SOLVED
		PER SECOND	(US/CM)	UNITS)	(DEG C)	(MG/L)	100 ML	(COLS./CACO3)	AS AS CA)	(MG/L AS MG)	(MG/L AS NA)
OCT 25...	0913	1.5	297	7.8	1.0	9.6	K4	150	49	7.2	2.0
JAN 23...	1230	12	322	8.0	0.0	8.3	K1	160	51	7.4	2.7
FEB 23...	1230	12	319	7.3	0.0	8.6	K1	170	56	8.4	2.4
MAR 26...	1330	13	337	7.9	1.5	9.5	<1	180	58	7.8	2.3
MAY 22...	0830	555	189	8.2	2.5	9.9	K2	95	31	4.3	1.1
JUL 16...	1530	90	197	8.4	15.0	7.5	K19	94	31	4.1	1.0
SEP 09...	1510	3.7	308	8.4	16.0	7.2	K9	150	49	7.1	2.3
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		SODIUM AD-	POTAS-SIUM,	ALKA-LINITY	SULFATE	CHLO-RIDE,	FLUO-RIDE,	SILICA,	SUM OF SOLIDS,	SOLID(S,	SOLID(S,
		SORP-TION	DIS-SOLVED	DIS-LAB	DIS-SOLVED	DIS-SOLVED	DIS-SOLVED	DIS-SOLVED	CONSTI-TUENTS,	DIS-SOLVED	DIS-SOLVED
		RATIO	(MG/L AS K)	(MG/L AS CACO3)	(MG/L AS SO4)	(MG/L AS CL)	(MG/L AS F)	(MG/L AS SIO2)	(MG/L AS SIO2)	(TONS PER AC-FT)	(TONS PER DAY)
OCT 25...	0.1	0.6	122	40	0.3	0.2	5.0	178	0.24	0.71	
JAN 23...	0.1	0.8	121	40	0.4	<0.1	5.3	181	0.25	5.61	
FEB 23...	0.1	0.6	131	40	0.3	<0.1	5.4	192	0.26	6.12	
MAR 26...	0.1	0.6	133	43	0.4	<0.1	5.3	198	0.27	6.94	
MAY 22...	0.0	0.5	85	13	0.2	<0.1	4.8	106	0.14	159	
JUL 16...	0.0	0.5	80	18	0.7	<0.1	3.8	108	0.15	26.2	
SEP 09...	0.1	0.7	123	36	0.2	<0.1	5.6	175	0.24	1.77	
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		NITRO-GEN,	NITRO-GEN,	NITRO-GEN, AM-	NITRO-GEN, AM-	NITRO-GEN, AM-	NITRO-GEN, AM-	PHOS-PHORUS	PHOS-PHORUS		
		NITRITE NO2+NO3	DIS-SOLVED	AMMONIA	MONIA + ORGANIC	MONIA + ORGANIC	MONIA + ORGANIC	PHORUS	PHORUS	ORTHO,	
		(MG/L AS N)	(MG/L AS N)	SOLVED	SOLVED	SOLVED	TOTAL (MG/L AS N)	DIS-SOLVED	DIS-SOLVED	DIS-SOLVED	
OCT 25...	0.01	0.05	<0.015	<0.2	<0.2	<0.2	<0.01	<0.01	<0.01	<0.01	
JAN 23...	<0.01	0.13	0.02	<0.2	<0.2	<0.2	<0.01	0.02	<0.01	<0.01	
FEB 23...	<0.01	0.11	<0.015	<0.2	<0.2	<0.2	<0.01	<0.01	<0.01	<0.01	
MAR 26...	<0.01	0.14	0.02	<0.2	<0.2	<0.2	<0.01	0.02	<0.01	<0.01	
MAY 22...	<0.01	0.12	<0.015	<0.2	<0.2	<0.2	<0.01	<0.01	<0.01	<0.01	
JUL 16...	<0.01	0.12	0.02	<0.2	<0.2	<0.2	<0.01	<0.01	<0.01	<0.01	
SEP 09...	<0.01	0.07	<0.015	<0.2	<0.2	<0.2	<0.01	<0.01	<0.01	<0.01	

K-Based on non-ideal colony count.

## GUNNISON RIVER BASIN

## UPPER GUNNISON RIVER WATER-QUALITY STUDY

**385408106543600 EAST RIVER ABOVE CRESTED BUTTE, CO--Continued**

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE	TEMPER- ATURE WATER (US/CM) (DEG C)
DEC 13...	0940	20	307	0.0

## UPPER GUNNISON RIVER WATER-QUALITY STUDY

384950106544200 EAST RIVER ABOVE SLATE RIVER, NEAR CRESTED BUTTE, CO

## WATER-QUALITY RECORDS

LOCATION.--Lat 38°49'50", long 106°54'42", in SE<sup>1/4</sup>SW<sup>1/4</sup> sec. 17, T.14 S. R.85 W., Gunnison County, Hydrologic Unit 14020001, 100 ft upstream from confluence with Slate River, and 4.7 mi southeast of Crested Butte.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--April 1995 to current year.

REMARKS.--No water-quality data at this site before April 1995.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. FEET	SPE-CIFIC ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR-BID- ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT 25...	1405	33	314	8.3	5.0	0.3	9.8	0.8	K8	160	51	7.9
DEC 06...	1020	42	319	8.2	1.5	0.2	10.5	0.1	K4	160	50	8.0
JAN 11...	1220	25	316	8.0	1.5	--	9.6	2.0	K2	170	55	8.6
FEB 22...	1300	23	324	7.4	1.5	--	10.5	--	K1	170	54	8.5
MAR 27...	1330	15	349	8.2	4.0	--	11.4	--	<1	190	60	9.0
MAY 22...	1030	841	186	8.2	5.0	4.9	9.3	1.5	<1	93	30	4.5
JUL 18...	1530	156	--	8.3	12.5	--	7.9	1.1	54	94	31	4.1
SEP 11...	0800	27	336	8.5	8.5	0.4	8.2	0.2	19	170	56	7.5
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DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORBED RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS-SOLVED (MG/L AS CL)	FLUO- RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L AS SOLVED (MG/L AS SIO2))	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
OCT 25...	1.8	0.1	0.8	129	43	0.3	0.2	5.9	--	189	0.26	16.8
DEC 06...	2.0	0.1	0.6	122	45	0.3	<0.1	5.7	--	185	0.25	21.1
JAN 11...	2.2	0.1	0.6	131	45	0.3	0.1	6.1	--	197	0.27	13.2
FEB 22...	2.2	0.1	0.8	130	42	0.3	<0.1	6.2	--	192	0.26	12.1
MAR 27...	2.4	0.1	0.8	137	47	0.4	<0.1	6.2	--	210	0.29	8.79
MAY 22...	1.0	0.0	0.6	82	12	0.2	<0.1	4.8	--	103	0.14	233
JUL 18...	1.0	0.0	0.5	80	18	0.7	<0.1	3.8	--	108	0.15	45.3
SEP 11...	1.8	0.1	1.0	138	33	0.2	<0.1	6.9	192	190	0.26	14.0

K-Based on non-ideal colony count.

## GUNNISON RIVER BASIN

## UPPER GUNNISON RIVER WATER-QUALITY STUDY

384950106544200 EAST RIVER ABOVE SLATE RIVER, NEAR CRESTED BUTTE, CO--Continued

## WATER-QUALITY RECORDS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO-GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO-GEN, NO <sub>2</sub> +NO <sub>3</sub> DIS- SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO-GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)
OCT 25...	0.02	0.09	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01
DEC 06...	<0.01	0.09	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01
JAN 11...	<0.01	0.11	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01
FEB 22...	<0.01	0.11	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01
MAR 27...	<0.01	0.42	0.05	<0.2	<0.2	--	0.05	0.04
MAY 22...	<0.01	0.12	<0.015	<0.2	<0.2	0.01	<0.01	<0.01
JUL 18...	<0.01	0.09	0.03	<0.2	<0.2	<0.01	<0.01	<0.01
SEP 11...	0.01	0.12	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- SUS- PENDED (MG/L)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- SUS- PENDED (MG/L)		
OCT 25...	1405	33	4	0.36	JUL 18...	1530	156	5	2.0
MAY 22...	1030	841	34	77	SEP 11...	0800	27	1	0.1

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- SUS- PENDED (MG/L)	
SEP 20...	1045	63	4	0.68

**UPPER GUNNISON RIVER WATER-QUALITY STUDY**  
**UPPER GUNNISON RIVER DRAINAGE**  
**383838106515400 GUNNISON RIVER BELOW ALMONT, CO**  
**WATER-QUALITY RECORDS**

LOCATION.--Lat 38°38'38", long 106°51'54", in NE<sup>1/4</sup>NW<sup>1/4</sup> sec. 33, T.51 N., R.1 E., Gunnison County, Hydrologic Unit 14020002, 1.9 mi downstream from confluence of East River and Taylor River, and 2.0 mi south of Almont.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--April 1995 to September 30, 1996 (discontinued).

REMARKS.--Previous to April 1995, no water-quality data at this site.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR-BID- ITY WATER (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL, 5 DAY (MG/L)	COLI- FORM, BIO- FECAL, UM-MF (COLS./ 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
OCT 26...	1045	351	205	8.0	3.0	--	9.6	2.2	K10	98	29	6.2
DEC 07...	1200	266	215	8.1	1.0	0.20	10.9	0.4	<1	110	31	6.9
JAN 12...	1150	261	197	8.5	0.0	--	10.8	1.4	<1	100	30	6.8
FEB 29...	1130	205	197	7.7	0.0	--	10.4	--	<1	89	26	5.9
APR 01...	1340	276	193	8.5	8.0	--	9.2	--	<1	92	27	6.0
MAY 23...	1130	3400	155	8.1	6.0	5.5	9.3	0.7	K10	72	22	4.2
JUL 18...	1040	1020	182	8.5	13.5	0.60	7.7	1.9	29	85	26	4.8
SEP 12...	0945	435	153	8.4	12.0	--	8.2	0.4	K11	74	22	4.7
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DATE		SODIUM, DIS-SOLVED (MG/L AS NA)	AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB SOLVED (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS-SOLVED (MG/L AS CL)	FLUO- RIDE, DIS-SOLVED (MG/L AS F')	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLID(S), SUM OF CONSTITUENTS, (TONS AS AC-FT)	SOLID(S), DIS-SOLVED (TONS PER DAY)	SOLID(S), DIS-SOLVED (TONS PER DAY)
OCT 26...		2.5	0.1	0.7	86	15	1.5	0.2	7.0	114	0.15	108
DEC 07...		2.7	0.1	0.7	93	15	0.6	0.2	7.3	120	0.16	86.5
JAN 12...		2.8	0.1	0.7	91	15	0.6	0.2	7.7	119	0.16	83.7
FEB 29...		3.0	0.1	0.7	87	13	0.7	0.2	8.0	110	0.15	61.0
APR 01...		3.0	0.1	0.8	87	15	0.9	0.1	7.5	113	0.15	84.0
MAY 23...		2.2	0.1	0.6	68	9.2	0.4	<0.1	6.0	86	0.12	787
JUL 18...		2.0	0.1	0.8	82	12	0.4	0.1	6.8	103	0.14	282
SEP 12...		2.1	0.1	0.7	68	9.8	0.5	0.1	7.2	88	0.12	104

K-Based on non-ideal colony count.

## GUNNISON RIVER BASIN

## UPPER GUNNISON RIVER WATER-QUALITY STUDY

## UPPER GUNNISON RIVER DRAINAGE

383838106515400 GUNNISON RIVER BELOW ALMONT, CO--Continued

## WATER-QUALITY RECORDS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO-GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO-GEN, NO <sub>2</sub> +NO <sub>3</sub> DIS- SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO-GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)
OCT 26...	<0.01	0.05	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01
DEC 07...	<0.01	0.06	<0.015	<0.2	<0.2	0.03	<0.01	0.01
JAN 12...	<0.01	0.08	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01
FEB 29...	<0.01	0.12	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01
APR 01...	0.02	0.06	<0.015	<0.2	<0.2	<0.10	<0.01	<0.01
MAY 23...	<0.01	0.07	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01
JUL 18...	<0.01	0.08	0.020	<0.2	<0.2	0.04	0.02	0.02
SEP 12...	<0.01	0.09	<0.015	<0.2	<0.2	0.01	<0.01	<0.01

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	CADMUM DIS- SOLVED (UG/L AS CD)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	TOTAL RECOV- ERABLE (UG/L AS MN)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 26...	<10	<1	<1	40	<1	<10	<10
APR 01...	<10	<1	<1	70	<1	<10	<3
MAY 23...	30	<1	<1	430	<1	30	7
SEP 12...	<5	<1	<1	80	<1	20	4

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	
OCT 26...	1045	351	1	0.95	JUL 18...	1040	1020	5	13
MAY 23...	1130	3400	32	293	SEP 12...	0945	435	96	113

**UPPER COLORADO RIVER BASIN GORE CREEK SYNOPTIC SAMPLING**  
**(National Water-Quality Assessment Program)**

The Upper Colorado River Basin National Water Quality Assessment Study Unit conducted a major ion, nutrient, and trace element reconnaissance sampling survey during mid-summer. Data were collected in the Gore Creek basin at a continuing record water-quality station and at the sites listed here. The reconnaissance data for continuing record station: 09066510, Gore Creek at Mouth near Minturn, CO, is published elsewhere in this report with other water-quality data for the station.

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L) CACO3	CALCIUM DIS- AS (MG/L) AS CA	MAGNE- SIUM, DIS- SOLVED (MG/L) AS MG	SODIUM, DIS- SOLVED (MG/L) AS NA	SODIUM AD- SORP- TION RATIO
393212106125800 BLACK GORE CREEK ABV BLACK LAKE (LAT 39 32 12N LONG 106 12 58W)											
AUG 1996 19...	1115	0.15	397	8.0	11.0	7.0	160	39	14	14	0.5
393307106133200 BLACK GORE CREEK BELOW BLACK LAKE #2 (LAT 39 33 07N LONG 106 13 32W)											
AUG 1996 19...	1125	0.12	180	7.9	15.5	6.7	45	13	3.0	15	1
393527106143500 POLK CREEK AT INTERSTATE 70 (LAT 39 35 27N LONG 106 14 35W)											
AUG 1996 19...	1330	2.2	105	8.1	10.0	8.0	49	13	4.0	1.7	0.1
09066000 BLACK GORE CREEK NEAR MINTURN, CO. (LAT 39 35 47N LONG 106 15 52W)											
AUG 1996 19...	1342	3.5	180	8.2	9.5	8.1	71	22	3.9	6.2	0.3
09066050 BLACK GORE CREEK NEAR VAIL, CO. (LAT 39 37 24N LONG 106 16 47W)											
AUG 1996 20...	1010	10	215	8.3	9.0	8.5	93	31	3.7	5.5	0.2
09065500 GORE CREEK AT UPPER STATION, NEAR MINTURN, CO. (LAT 39 37 40N LONG 106 16 24W)											
AUG 1996 20...	0916	17	52	7.6	8.0	8.6	23	5.4	2.3	0.7	0.1
393737106165900 GORE CREEK BLW BLACK GORE CREEK NEAR VAIL, CO. (LAT 39 37 37N LONG 106 16 59W)											
AUG 1996 20...	1300	20	125	8.0	10.0	8.3	51	16	2.8	2.6	0.2
393807106174600 GORE CREEK ABV BIGHORN CREEK NEAR VAIL, CO. (LAT 39 38 07N LONG 106 17 46W)											
AUG 1996 20...	1418	23	131	7.5	12.0	7.8	58	18	3.1	2.9	0.2
09066100 BIGHORN CREEK NEAR MINTURN, CO. (LAT 39 38 24N LONG 106 17 34W)											
AUG 1996 20...	1107	4.9	45	7.7	7.5	8.7	21	5.0	2.0	0.7	0.1
09066150 PITKIN CREEK NEAR MINTURN, CO. (LAT 39 38 37N LONG 106 18 07W)											
AUG 1996 21...	0826	4.7	66	7.7	7.0	8.5	30	7.2	2.9	0.9	0.1
393831106181900 GORE CREEK AT BIGHORN SUBDIV. BELOW PITKIN CREEK (LAT 39 38 31N LONG 106 18 19W)											
AUG 1996 21...	0830	36	108	8.0	8.0	8.8	47	14	3.0	2.3	0.1
09066200 BOOTH CREEK NEAR MINTURN, CO. (LAT 39 39 02N LONG 106 19 16W)											
AUG 1996 21...	1027	2.5	98	8.0	9.0	8.2	46	14	2.8	1.0	0.1
393844106192100 GORE CREEK ABOVE WELL FIELD, NEAR VAIL, CO. (LAT 39 38 44N LONG 106 19 21W)											
AUG 1996 21...	1323	30	110	8.2	14.0	7.7	47	14	2.9	2.3	0.1

**UPPER COLORADO RIVER BASIN GORE CREEK SYNOPTIC SAMPLING--Continued**  
**(National Water-Quality Assessment Program)**

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L CACO3)	CALCIUM DIS- AS (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	AD- SORP- TION RATIO
09066250            GORE CREEK AT VAIL, CO. (LAT 39 38 35N LONG 106 20 44W)											
AUG 1996 21...	1100	29	115	8.2	12.0	8.5	50	15	3.0	2.3	0.1
393825106220000 GORE CREEK BELOW GOLF COURSE, AT VAIL, CO. (LAT 39 38 25N LONG 106 22 00W)											
AUG 1996 21...	1445	28	165	8.3	16.0	7.7	75	23	4.2	2.7	0.1
393814106221500 MILL CREEK AT SKI AREA AT VAIL, CO. (LAT 39 38 14N LONG 106 22 15W)											
AUG 1996 21...	1600	4.3	302	8.5	9.0	8.6	150	45	9.5	1.5	0.0
09066300            MIDDLE CREEK NEAR MINTURN, CO. (LAT 39 38 50N LONG 106 22 48W)											
AUG 1996 22...	0813	1.4	234	8.4	7.5	8.7	120	36	6.5	1.4	0.1
09066310            GORE CREEK, LOWER STATION, AT VAIL, CO. (LAT 39 38 28N LONG 106 23 37W)											
AUG 1996 22...	0750	35	229	7.8	10.0	8.7	100	32	5.8	2.6	0.1
393829106233800 VAIL WWTP EFFLUENT PIPE AT VAIL, CO. (LAT 39 38 29N LONG 106 23 38W)											
AUG 1996 22...	1000	2.9	617	7.3	17.0	7.4	170	55	7.9	45	2
393829106234400 RED SANDSTONE CREEK AT MOUTH, AT VAIL, CO. (LAT 39 38 29N LONG 106 23 44W)											
AUG 1996 22...	0955	4.1	280	8.3	10.0	8.5	130	44	5.2	2.8	0.1
393823106240000 GORE CREEK BLW RED SANDSTONE CR AT VAIL, CO. (LAT 39 38 23N LONG 106 24 00W)											
AUG 1996 22...	1309	55	251	8.4	12.5	8.2	110	34	5.9	4.6	0.2
393756106244300 GORE CREEK BELOW BUFFEHR CREEK NEAR WEST VAIL, CO (LAT 39 37 56N LONG 106 24 43W)											
AUG 1996 22...	1135	55	262	8.7	12.0	8.3	120	36	6.2	4.9	0.2
393738106251000 GORE CREEK AT WEST VAIL EXIT (LAT 39 37 38N LONG 106 25 10W)											
AUG 1996 22...	1530	50	270	8.8	15.0	7.7	130	39	6.7	4.6	0.2
393713106253900 GORE CREEK AT WEST VAIL, CO. (LAT 39 37 13N LONG 106 25 39W)											
AUG 1996 22...	1559	54	276	8.9	13.5	8.4	120	39	6.7	4.7	0.2

**UPPER COLORADO RIVER BASIN GORE CREEK SYNOPTIC SAMPLING--Continued  
(National Water-Quality Assessment Program)**

	POTAS-	LINITY	CHLO-	FLUO-	SILICA,	SOLIDS,	SOLIDS,	SOLIDS,	SOLIDS,	
	SIUM,	WAT DIS	SULFATE	RIDE,	RIDE,	RESIDUE AT 180	DIS-CONSTITUENTS,	DIS-SOLVED	DIS-SOLVED	
	DIS-	TOT IT	DIS-	DIS-	DIS-	DEG. C	TUENTS,	SOLVED	SOLVED	
DATE	SOLVED	FIELD	SOLVED	SOLVED	SOLVED	(MG/L)	DIS-	DIS-	DIS-	
	(MG/L)	MG/L AS	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(TONS)	(TONS)	(TONS)	
	AS K)	CACO3	AS SO4)	AS CL)	AS F)	SIO2)	PER AC-FT)	PER AC-FT)	PER DAY)	
	393212106125800 BLACK GORE CREEK ABV BLACK LAKE (LAT 39 32 12N LONG 106 12 58W)									
AUG 1996 19...	0.8	136	4.0	39	<0.1	4.5	205	199	0.28	0.08
	393307106133200 BLACK GORE CREEK BELOW BLACK LAKE #2 (LAT 39 33 07N LONG 106 13 32W)									
AUG 1996 19...	0.5	39	2.1	28	<0.1	3.1	87	88	0.12	0.03
	393527106143500 POLK CREEK AT INTERSTATE 70 (LAT 39 35 27N LONG 106 14 35W)									
AUG 1996 19...	0.4	48	1.5	<0.1	<0.1	6.0	53	--	--	--
	09066000 BLACK GORE CREEK NEAR MINTURN, CO. (LAT 39 35 47N LONG 106 15 52W)									
AUG 1996 19...	0.6	76	2.1	9.9	<0.1	5.8	95	96	0.13	0.90
	09066050 BLACK GORE CREEK NEAR VAIL, CO. (LAT 39 37 24N LONG 106 16 47W)									
AUG 1996 20...	0.7	98	2.7	7.6	<0.1	5.8	112	116	0.15	3.05
	09065500 GORE CREEK AT UPPER STATION, NEAR MINTURN, CO. (LAT 39 37 40N LONG 106 16 24W)									
AUG 1996 20...	0.2	--	1.7	<0.1	0.1	2.8	17	--	--	--
	393737106165900 GORE CREEK BLW BLACK GORE CREEK NEAR VAIL, CO. (LAT 39 37 37N LONG 106 16 59W)									
AUG 1996 20...	0.4	59	2.3	3.0	<0.1	3.9	64	65	0.09	3.53
	393807106174600 GORE CREEK ABV BIGHORN CREEK NEAR VAIL, CO. (LAT 39 38 07N LONG 106 17 46W)									
AUG 1996 20...	0.5	62	2.4	3.1	<0.1	4.3	64	71	0.09	3.97
	09066100 BIGHORN CREEK NEAR MINTURN, CO. (LAT 39 38 24N LONG 106 17 34W)									
AUG 1996 20...	0.3	--	1.6	<0.1	0.1	3.1	26	--	--	--
	09066150 PITKIN CREEK NEAR MINTURN, CO. (LAT 39 38 37N LONG 106 18 07W)									
AUG 1996 21...	0.5	30	1.7	<0.1	0.1	3.7	35	--	--	--
	93831106181900 GORE CREEK AT BIGHORN SUBDIV. BELOW PITKIN CREEK (LAT 39 38 31N LONG 106 18 19W)									
AUG 1996 21...	0.5	50	2.0	2.2	<0.1	4.1	53	58	0.07	5.21
	09066200 BOOTH CREEK NEAR MINTURN, CO. (LAT 39 39 02N LONG 106 19 16W)									
AUG 1996 21...	0.5	46	2.1	<0.1	0.1	3.8	48	--	--	--
	393844106192100 GORE CREEK ABOVE WELL FIELD, NEAR VAIL, CO. (LAT 39 38 44N LONG 106 19 21W)									
AUG 1996 21...	0.5	49	2.1	2.2	<0.1	4.1	51	59	0.07	4.12

**UPPER COLORADO RIVER BASIN GORE CREEK SYNOPTIC SAMPLING--Continued**  
**(National Water-Quality Assessment Program)**

DATE	ALKA-SIUM, DIS-SOLVED (MG/L AS K)		LINTY WAT DIS FIELD AS CACO3		CHLO-SULFATE DIS-TOT IT SOLVED AS SO4)		FLUO-RIDE, DIS-DIS- SOLVED AS CL)		SILICA, DIS-SOLVED (MG/L AS F) SIO2)		SOLIDS, RESIDUE (MG/L)	SOLIDS, SUM OF TUENTS, SOLVED (MG/L)	SOLIDS, DIS-CONSTITUENTS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-DEG. C SOLVED (TONS PER DAY)
	09066250 GORE CREEK AT VAIL, CO. (LAT 39 38 35N LONG 106 20 44W)													
AUG 1996 21...	0.5	53	2.3	2.5	<0.1	4.0	55	61	0.08	4.35				
	393825106220000 GORE CREEK BELOW GOLF COURSE, AT VAIL, CO. (LAT 39 38 25N LONG 106 22 00W)													
AUG 1996 21...	0.7	65	12	2.9	<0.1	4.3	83	89	0.11	6.27				
	393814106221500 MILL CREEK AT SKI AREA AT VAIL, CO. (LAT 39 38 14N LONG 106 22 15W)													
AUG 1996 21...	0.7	146	15	0.8	<0.1	6.1	161	167	0.22	1.86				
	09066300 MIDDLE CREEK NEAR MINTURN, CO. (LAT 39 38 50N LONG 106 22 48W)													
AUG 1996 22...	0.7	121	7.3	0.1	<0.1	6.0	134	129	0.18	0.51				
	09066310 GORE CREEK, LOWER STATION, AT VAIL, CO. (LAT 39 38 28N LONG 106 23 37W)													
AUG 1996 22...	0.7	84	22	3.2	<0.1	4.5	126	123	0.17	11.8				
	393829106233800 VAIL WWTP EFFLUENT PIPE AT VAIL, CO. (LAT 39 38 29N LONG 106 23 38W)													
AUG 1996 22...	7.6	119	44	63	0.2	6.6	345	352	0.47	--				
	393829106234400 RED SANDSTONE CREEK AT MOUTH, AT VAIL, CO. (LAT 39 38 29N LONG 106 23 44W)													
AUG 1996 22...	0.6	116	28	0.6	<0.1	9.0	163	160	0.22	1.78				
	393823106240000 GORE CREEK BLW RED SANDSTONE CR AT VAIL, CO. (LAT 39 38 23N LONG 106 24 00W)													
AUG 1996 22...	1.0	88	24	5.7	<0.1	5.0	135	137	0.18	20.0				
	393756106244300 GORE CREEK BELOW BUFFEHR CREEK NEAR WEST VAIL, CO. (LAT 39 37 56N LONG 106 24 43W)													
AUG 1996 22...	1.1	92	26	6.1	0.1	5.1	151	145	0.21	22.2				
	393738106251000 GORE CREEK AT WEST VAIL EXIT (LAT 39 37 38N LONG 106 25 10W)													
AUG 1996 22...	1.1	93	30	5.6	<0.1	5.2	154	154	0.21	20.8				
	393713106253900 GORE CREEK AT WEST VAIL, CO. (LAT 39 37 13N LONG 106 25 39W)													
AUG 1996 22...	1.0	92	32	5.8	<0.1	5.1	148	155	0.20	21.4				

**UPPER COLORADO RIVER BASIN GORE CREEK SYNOPTIC SAMPLING--Continued  
(National Water-Quality Assessment Program)**

	NITRO- GEN, NITRITE DIS- SOLVED DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- PHOS- PHORUS DIS. (MG/L AS P)	PHOS- PHORUS DIS- TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
393212106125800 BLACK GORE CREEK ABV BLACK LAKE (LAT 39 32 12N LONG 106 12 58W)								
AUG 1996 19...	<0.01	0.11	0.22	0.5	0.3	<0.01	<0.01	<0.01 3.5 0.2
393307106133200 BLACK GORE CREEK BELOW BLACK LAKE #2 (LAT 39 33 07N LONG 106 13 32W)								
AUG 1996 19...	<0.01	<0.05	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01 2.8 0.7
393527106143500 POLK CREEK AT INTERSTATE 70 (LAT 39 35 27N LONG 106 14 35W)								
AUG 1996 19...	<0.01	<0.05	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01 0.7 <0.1
09066000 BLACK GORE CREEK NEAR MINTURN, CO. (LAT 39 35 47N LONG 106 15 52W)								
AUG 1996 19...	<0.01	<0.05	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01 1.0 0.2
09066050 BLACK GORE CREEK NEAR VAIL, CO. (LAT 39 37 24N LONG 106 16 47W)								
AUG 1996 20...	<0.01	<0.05	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01 1.1 <0.1
09065500 GORE CREEK AT UPPER STATION, NEAR MINTURN, CO. (LAT 39 37 40N LONG 106 16 24W)								
AUG 1996 20...	<0.01	0.07	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01 0.8 0.2
393737106165900 GORE CREEK BLW BLACK GORE CREEK NEAR VAIL, CO. (LAT 39 37 37N LONG 106 16 59W)								
AUG 1996 20...	<0.01	0.05	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01 1.0 <0.1
393807106174600 GORE CREEK ABV BIGHORN CREEK NEAR VAIL, CO. (LAT 39 38 07N LONG 106 17 46W)								
AUG 1996 20...	<0.01	0.06	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01 0.9 <0.1
09066100 BIGHORN CREEK NEAR MINTURN, CO. (LAT 39 38 24N LONG 106 17 34W)								
AUG 1996 20...	<0.01	0.07	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01 0.5 <0.1
09066150 PITKIN CREEK NEAR MINTURN, CO. (LAT 39 38 37N LONG 106 18 07W)								
AUG 1996 21...	<0.01	0.08	<0.015	<0.2	<0.2	<0.01	0.02	<0.01 0.5 <0.1
93831106181900 GORE CREEK AT BIGHORN SUBDIV. BELOW PITKIN CREEK (LAT 39 38 31N LONG 106 18 19W)								
AUG 1996 21...	<0.01	0.08	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01 0.9 <0.1
09066200 BOOTH CREEK NEAR MINTURN, CO. (LAT 39 39 02N LONG 106 19 16W)								
AUG 1996 21...	<0.01	0.05	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01 0.6 <0.1
393844106192100 GORE CREEK ABOVE WELL FIELD, NEAR VAIL, CO. (LAT 39 38 44N LONG 106 19 21W)								
AUG 1996 21...	<0.01	0.05	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01 0.8 <0.1

**UPPER COLORADO RIVER BASIN GORE CREEK SYNOPTIC SAMPLING--Continued**  
**(National Water-Quality Assessment Program)**

DATE	NITRO- GEN, NITRITE DIS- SOLVED	NITRO- GEN, NO <sub>2</sub> +NO <sub>3</sub>	NITRO- GEN, AMMONIA DIS- SOLVED	NITRO- GEN, AM- MONIA + ORGANIC TOTAL	NITRO- GEN, AM- MONIA + ORGANIC DIS.	PHOS- PHORUS PHORUS	PHOS- PHORUS DIS-	PHORUS ORTHO, DIS-	CARBON, ORGANIC DIS- SOLVED	CARBON, ORGANIC DIS- SOLVED	CARBON, ORGANIC DIS- SOLVED
	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS P)	(MG/L AS P)	(MG/L AS P)	(MG/L AS C)	(MG/L AS C)	(MG/L AS C)
09066250                    GORE CREEK AT VAIL, CO. (LAT 39 38 35N LONG 106 20 44W)											
AUG 1996 21...	<0.01	0.08	0.02	<0.2	<0.2	<0.01	<0.01	<0.01	0.9	<0.1	
393825106220000 GORE CREEK BELOW GOLF COURSE, AT VAIL, CO. (LAT 39 38 25N LONG 106 22 00W)											
AUG 1996 21...	<0.01	0.12	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01	0.8	0.2	
393814106221500 MILL CREEK AT SKI AREA AT VAIL, CO. (LAT 39 38 14N LONG 106 22 15W)											
AUG 1996 21...	<0.01	0.13	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01	0.8	<0.1	
09066300                    MIDDLE CREEK NEAR MINTURN, CO. (LAT 39 38 50N LONG 106 22 48W)											
AUG 1996 22...	<0.01	<0.05	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01	1.2	<0.1	
09066310                    GORE CREEK, LOWER STATION, AT VAIL, CO. (LAT 39 38 28N LONG 106 23 37W)											
AUG 1996 22...	<0.01	0.17	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01	0.8	0.2	
393829106233800 VAIL WWTP EFFLUENT PIPE AT VAIL, CO. (LAT 39 38 29N LONG 106 23 38W)											
AUG 1996 22...	0.01	10	0.07	0.9	0.7	1.7	1.5	1.6	3.9	1.1	
393829106234400 RED SANDSTONE CREEK AT MOUTH, AT VAIL, CO. (LAT 39 38 29N LONG 106 23 44W)											
AUG 1996 22...	<0.01	0.11	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01	1.3	0.2	
393823106240000 GORE CREEK BLW RED SANDSTONE CR AT VAIL, CO. (LAT 39 38 23N LONG 106 24 00W)											
AUG 1996 22...	<0.01	0.57	<0.015	<0.2	<0.2	0.07	0.06	0.08	1.0	<0.1	
393756106244300 GORE CREEK BELOW BUFFEHR CREEK NEAR WEST VAIL, CO. (LAT 39 37 56N LONG 106 24 43W)											
AUG 1996 22...	<0.01	0.61	<0.015	<0.2	<0.2	0.09	0.07	0.08	1.1	0.2	
393738106251000 GORE CREEK AT WEST VAIL EXIT (LAT 39 37 38N LONG 106 25 10W)											
AUG 1996 22...	<0.01	0.50	<0.015	<0.2	<0.2	0.10	0.09	0.07	1.2	0.2	
393713106253900 GORE CREEK AT WEST VAIL, CO. (LAT 39 37 13N LONG 106 25 39W)											
AUG 1996 22...	<0.01	0.50	0.02	<0.2	<0.2	0.06	0.05	0.06	1.1	0.2	

**UPPER COLORADO RIVER BASIN GORE CREEK SYNOPTIC SAMPLING--Continued  
(National Water-Quality Assessment Program)**

	ALUM- INUM, DIS- SOLVED DATE	ANTI- MONY, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS SB)	BARIUM, DIS- SOLVED (UG/L AS AS)	BERYL- LIUM, DIS- SOLVED (UG/L AS BA)	CADMUM TOTAL RECOV- ERABLE (UG/L AS BE)	CADMUM TOTAL DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
--	--	---	--	--	--	--	--	---	---

393307106133200 BLACK GORE CREEK BELOW BLACK LAKE #2 (LAT 39 33 07N LONG 106 13 32W)

AUG 1996 10 <1 <1 130 <1 <1 <1 <1 <1 <1

393527106143500 POLK CREEK AT INTERSTATE 70 (LAT 39 35 27N LONG 106 14 35W)

09066000 BLACK GORE CREEK NEAR MINTURN, CO. (LAT 39 35 47N LONG 106 15 52W)

AUG 1996 19... 5 <1 <1 170 <1 <1 <1 <1 <1 <1

09065500 GORE CREEK AT UPPER STATION, NEAR MINTURN, CO. (LAT 39 37 40N LONG 106 16 24W)

393844106192100 GORE CREEK ABOVE WELL FIELD, NEAR VAIL, CO. (LAT 39 38 44N LONG 106 19 21W)

AUG 1996 21... 7 <1 <1 66 <1 <1 <1 <1 <1 <1

393825106220000 GORE CREEK BELOW GOLF COURSE, AT VAIL, CO. (LAT 39 38 25N LONG 106 22 00W)

AUG 1996 21... 8 <1 <1 82 <1 <1 <1 <1 <1 <1

393814106221500 MILL CREEK AT SKI AREA AT VAIL, CO. (LAT 39 38 14N LONG 106 22 15W)

AUG 1996 5 <1 <1 94 <1 <1 <1 <1 <1 3

21... 5 <1 <1 94 <1 <1 <1 <1 <1 3

09066310 GORE CREEK, LOWER STATION, AT VAIL, CO. (LAT 39 38 28N LONG 106 23 37W)

AUG 1996 22... 4 <1 <1 87 <1 <1 <1 <1 <1 2

393829106233800 VAIL WWTP EFFLUENT PIPE AT VAIL, CO. (LAT 39 38 29N LONG 106 23 38W)

AUG 1996 22... 7 <1 <1 90 <1 <1 <1 <1 <1 3

393829106234400 RED SANDSTONE CREEK AT MOUTH, AT VAIL, CO. (LAT 39 38 29N LONG 106 23 44W)

AUG 1996 22... 6 <1 <1 150 <1 <1 <1 <1 <1 <1

393823106240000 GORE CREEK BLW RED SANDSTONE CR AT VAIL, CO. (LAT 39 38 23N LONG 106 24 00W)

AUG 1996 22... 6 <1 <1 90 <1 <1 <1 <1 <1 2

393738106251000 GORE CREEK AT WEST VAIL EXIT (LAT 39 37 38N LONG 106 25 10W)

AUG 1996 22... 6 <1 <1 94 <1 <1 <1 <1 <1 2

**UPPER COLORADO RIVER BASIN GORE CREEK SYNOPTIC SAMPLING--Continued**  
**(National Water-Quality Assessment Program)**

DATE	COPPER, COBALT, DIS- SOLVED (UG/L AS CO)	TOTAL ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	TOTAL ERABLE (UG/L AS FE)	IRON, RECOV- SOLVED (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS PB)	LEAD, RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)
	393212106125800 BLACK GORE CREEK ABV BLACK LAKE (LAT 39 32 12N LONG 106 12 58W)									
AUG 1996	19...	--	--	--	--	5	--	--	530	--
	393307106133200 BLACK GORE CREEK BELOW BLACK LAKE #2 (LAT 39 33 07N LONG 106 13 32W)									
AUG 1996	19...	<1	<1	<1	290	150	<1	<1	36	<1
	393527106143500 POLK CREEK AT INTERSTATE 70 (LAT 39 35 27N LONG 106 14 35W)									
AUG 1996	19...	<1	<1	<1	20	4	<1	<1	<1	<1
	09066000 BLACK GORE CREEK NEAR MINTURN, CO. (LAT 39 35 47N LONG 106 15 52W)									
AUG 1996	19...	<1	<1	<1	40	20	<1	<1	8	<1
	09066050 BLACK GORE CREEK NEAR VAIL, CO. (LAT 39 37 24N LONG 106 16 47W)									
AUG 1996	20...	--	--	--	--	14	--	--	22	--
	09065500 GORE CREEK AT UPPER STATION, NEAR MINTURN, CO. (LAT 39 37 40N LONG 106 16 24W)									
AUG 1996	20...	<1	<1	2	<10	4	<1	<1	<1	<1
	393737106165900 GORE CREEK BLW BLACK GORE CREEK NEAR VAIL, CO. (LAT 39 37 37N LONG 106 16 59W)									
AUG 1996	20...	--	--	--	--	8	--	--	7	--
	393807106174600 GORE CREEK ABV BIGHORN CREEK NEAR VAIL, CO. (LAT 39 38 07N LONG 106 17 46W)									
AUG 1996	20...	--	--	--	--	9	--	--	6	--
	09066100 BIGHORN CREEK NEAR MINTURN, CO. (LAT 39 38 24N LONG 106 17 34W)									
AUG 1996	20...	--	--	--	--	4	--	--	<1	--
	09066150 PITKIN CREEK NEAR MINTURN, CO. (LAT 39 38 37N LONG 106 18 07W)									
AUG 1996	21...	--	--	--	--	4	--	--	<1	--
	393831106181900 GORE CREEK AT BIGHORN SUBDIV. BELOW PITKIN CREEK (LAT 39 38 31N LONG 106 18 19W)									
AUG 1996	21...	--	--	--	--	8	--	--	3	--
	09066200 BOOTH CREEK NEAR MINTURN, CO. (LAT 39 39 02N LONG 106 19 16W)									
AUG 1996	21...	--	--	--	--	<3	--	--	<1	--
	393844106192100 GORE CREEK ABOVE WELL FIELD, NEAR VAIL, CO. (LAT 39 38 44N LONG 106 19 21W)									
AUG 1996	21...	<1	<1	<1	20	7	<1	<1	4	<1

**UPPER COLORADO RIVER BASIN GORE CREEK SYNOPTIC SAMPLING--Continued**  
**(National Water-Quality Assessment Program)**

DATE	COBALT, SOLVED (UG/L AS CO)	COPPER, TOTAL (UG/L AS CU)	COPPER, DIS- RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL (UG/L AS FE)	IRON, DIS- RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL (UG/L AS PB)	LEAD, DIS- RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	
	09066250	GORE CREEK AT VAIL, CO. (LAT 39 38 35N LONG 106 20 44W)								
AUG 1996	21...	--	--	--	--	8	--	--	2	--
	393825106220000	GORE CREEK BELOW GOLF COURSE, AT VAIL, CO. (LAT 39 38 25N LONG 106 22 00W)								
AUG 1996	21...	<1	<1	<1	20	5	<1	<1	2	<1
	393814106221500	MILL CREEK AT SKI AREA, AT VAIL, CO. (LAT 39 38 14N LONG 106 22 15W)								
AUG 1996	21...	<1	<1	<1	20	<3	<1	<1	<1	<1
	09066300	MIDDLE CREEK NEAR MINTURN, CO. (LAT 39 38 50N LONG 106 22 48W)								
AUG 1996	22...	--	--	--	--	<3	--	--	<1	--
	09066310	GORE CREEK, LOWER STATION, AT VAIL, CO. (LAT 39 38 28N LONG 106 23 37W)								
AUG 1996	22...	<1	<1	<1	70	4	<1	<1	3	<1
	393829106233800	VAIL WWTP EFFLUENT PIPE AT VAIL, CO. (LAT 39 38 29N LONG 106 23 38W)								
AUG 1996	22...	<1	13	8	190	81	<1	<1	2	8
	393829106234400	RED SANDSTONE CREEK AT MOUTH, AT VAIL, CO. (LAT 39 38 29N LONG 106 23 44W)								
AUG 1996	22...	<1	<1	1	30	9	<1	<1	15	<1
	393823106240000	GORE CREEK BLW RED SANDSTONE CR, AT VAIL, CO. (LAT 39 38 23N LONG 106 24 00W)								
AUG 1996	22...	<1	<1	1	50	9	<1	<1	3	<1
	393756106244300	GORE CREEK BELOW BUFFEHR CREEK NEAR WEST VAIL, CO. (LAT 39 37 56N LONG 106 24 43W)								
AUG 1996	22...	--	--	--	--	6	--	--	2	--
	393738106251000	GORE CREEK AT WEST VAIL EXIT (LAT 39 37 38N LONG 106 25 10W)								
AUG 1996	22...	<1	<1	<1	40	9	<1	<1	2	<1
	393713106253900	GORE CREEK AT WEST VAIL, CO. (LAT 39 37 13N LONG 106 25 39W)								
AUG 1996	22...	--	--	--	--	6	--	--	1	--

**UPPER COLORADO RIVER BASIN GORE CREEK SYNOPTIC SAMPLING--Continued**  
**(National Water-Quality Assessment Program)**

DATE	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)		NICKEL, DIS- SOLVED (UG/L AS NI)		SILVER, DIS- SOLVED (UG/L AS AG)		ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)		ZINC, DIS- SOLVED (UG/L AS ZN)		URANIUM NATURAL SOLVED (UG/L AS U)		SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L (T/DAY)	
393212106125800	BLACK GORE CREEK ABV BLACK LAKE (LAT 39 32 12N LONG 106 12 58W)													
AUG 1996 19...	--	--	--	--	--	--	--	--	--	--	1	0.00		
393307106133200	BLACK GORE CREEK BELOW BLACK LAKE #2 (LAT 39 33 07N LONG 106 13 32W)													
AUG 1996 19...	<1	<1	<1	<10	<10	<1	<1	<1	<1	<1	3	0.00		
393527106143500	POLK CREEK AT INTERSTATE 70 (LAT 39 35 27N LONG 106 14 35W)													
AUG 1996 19...	<1	<1	<1	<10	<10	<1	<1	<1	<1	<1	0	0.00		
09066000	BLACK GORE CREEK NEAR MINTURN, CO. (LAT 39 35 47N LONG 106 15 52W)													
AUG 1996 19...	<1	1	<1	<10	<10	2	1	0	0	0	0.00			
09066050	BLACK GORE CREEK NEAR VAIL, CO. (LAT 39 37 24N LONG 106 16 47W)													
AUG 1996 20...	--	--	--	--	--	--	--	--	--	--	1	0.02		
09065500	GORE CREEK AT UPPER STATION, NEAR MINTURN, CO. (LAT 39 37 40N LONG 106 16 24W)													
AUG 1996 20...	<1	2	<1	<10	<10	5	<1	0	0	0	0.01			
393737106165900	GORE CREEK BLW BLACK GORE CREEK NEAR VAIL, CO. (LAT 39 37 37N LONG 106 16 59W)													
AUG 1996 20...	--	--	--	--	--	--	--	--	--	--	0	0.01		
393807106174600	GORE CREEK ABV BIGHORN CREEK NEAR VAIL, CO. (LAT 39 38 07N LONG 106 17 46W)													
AUG 1996 20...	--	--	--	--	--	--	--	--	--	--	0	0.01		
09066100	BIGHORN CREEK NEAR MINTURN, CO. (LAT 39 38 24N LONG 106 17 34W)													
AUG 1996 20...	--	--	--	--	--	--	--	--	--	--	0	0.00		
09066150	PITKIN CREEK NEAR MINTURN, CO. (LAT 39 38 37N LONG 106 18 07W)													
AUG 1996 21...	--	--	--	--	--	--	--	--	--	--	0	0.00		
393831106181900	GORE CREEK AT BIGHORN SUBDIV. BELOW PITKIN CREEK (LAT 39 38 31N LONG 106 18 19W)													
AUG 1996 21...	--	--	--	--	--	--	--	--	--	--	0	0.02		
09066200	BOOTH CREEK NEAR MINTURN, CO. (LAT 39 39 02N LONG 106 19 16W)													
AUG 1996 21...	--	--	--	--	--	--	--	--	--	--	0	0.00		
393844106192100	GORE CREEK ABOVE WELL FIELD, NEAR VAIL, CO. (LAT 39 38 44N LONG 106 19 21W)													
AUG 1996 21...	<1	<1	<1	<10	<10	<1	<1	0	0	0	0.02			

**UPPER COLORADO RIVER BASIN GORE CREEK SYNOPTIC SAMPLING--Continued**  
**(National Water-Quality Assessment Program)**

DATE	NICKEL, TOTAL RECOV- ERABLE	NICKEL, DIS- SOLVED	SILVER, DIS- SOLVED	ZINC, TOTAL RECOV- ERABLE	ZINC, DIS- SOLVED	NATURAL URANIUM	SEDIMENT, DIS- MENT,	SEDIMENT, DIS- CHARGE,
	(UG/L) AS NI)	(UG/L) AS NI)	(UG/L) AS AG)	(UG/L) AS ZN)	(UG/L) AS ZN)	(UG/L) AS ZN)	(UG/L) AS U)	(MG/L) (T/DAY)
09066250	GORE CREEK AT VAIL, CO. (LAT 39 38 35N LONG 106 20 44W)							
AUG 1996 21...	--	--	--	--	--	--	0	0.01
393825106220000	GORE CREEK BELOW GOLF COURSE, AT VAIL, CO. (LAT 39 38 25N LONG 106 22 00W)							
AUG 1996 21...	<1	1	<1	<10	<1	1	1	0.04
393814106221500	MILL CREEK AT SKI AREA, AT VAIL, CO. (LAT 39 38 14N LONG 106 22 15W)							
AUG 1996 21...	<1	2	<1	<10	<1	2	1	0.01
09066300	MIDDLE CREEK NEAR MINTURN, CO. (LAT 39 38 50N LONG 106 22 48W)							
AUG 1996 22...	--	--	--	--	--	--	0	0.00
09066310	GORE CREEK, LOWER STATION, AT VAIL, CO. (LAT 39 38 28N LONG 106 23 37W)							
AUG 1996 22...	<1	1	<1	<10	<1	1	1	0.07
393829106233800	VAIL WWTP EFFLUENT PIPE, AT VAIL, CO. (LAT 39 38 29N LONG 106 23 38W)							
AUG 1996 22...	<1	3	<1	20	16	2	3	--
393829106234400	RED SANDSTONE CREEK AT MOUTH, AT VAIL, CO. (LAT 39 38 29N LONG 106 23 44W)							
AUG 1996 22...	<1	3	<1	<10	2	<1	1	0.01
393823106240000	GORE CREEK BLW RED SANDSTONE CR, AT VAIL, CO. (LAT 39 38 23N LONG 106 24 00W)							
AUG 1996 22...	<1	2	<1	<10	1	1	1	0.18
393756106244300	GORE CREEK BELOW BUFFEHR CREEK NEAR WEST VAIL, CO. (LAT 39 37 56N LONG 106 24 43W)							
AUG 1996 22...	--	--	--	--	--	--	1	0.15
393738106251000	GORE CREEK AT WEST VAIL EXIT (LAT 39 37 38N LONG 106 25 10W)							
AUG 1996 22...	<1	2	<1	<10	1	1	1	0.09
393713106253900	GORE CREEK AT WEST VAIL, CO. (LAT 39 37 13N LONG 106 25 39W)							
AUG 1996 22...	--	--	--	--	--	--	1	0.20

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# CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
<b>Length</b>		
inch (in.)	$2.54 \times 10^1$	millimeter
foot (ft)	$2.54 \times 10^{-2}$	meter
mile (mi)	$3.048 \times 10^{-1}$	meter
	$1.609 \times 10^0$	kilometer
<b>Area</b>		
acre	$4.047 \times 10^3$	square meter
	$4.047 \times 10^{-1}$	square hectometer
	$4.047 \times 10^{-3}$	square kilometer
square mile ( $\text{mi}^2$ )	$2.590 \times 10^0$	square kilometer
<b>Volume</b>		
gallon (gal)	$3.785 \times 10^0$	liter
	$3.785 \times 10^0$	cubic decimeter
	$3.785 \times 10^{-3}$	cubic meter
million gallons (Mgal)	$3.785 \times 10^3$	cubic meter
	$3.785 \times 10^{-3}$	cubic hectometer
cubic foot ( $\text{ft}^3$ )	$2.832 \times 10^1$	cubic decimeter
	$2.832 \times 10^{-2}$	cubic meter
cubic-foot-per-second day [ $(\text{ft}^3/\text{s}) \text{ d}$ ]	$2.447 \times 10^3$	cubic meter
	$2.447 \times 10^{-3}$	cubic hectometer
acre-foot (acre-ft)	$1.233 \times 10^3$	cubic meter
	$1.233 \times 10^{-3}$	cubic hectometer
	$1.233 \times 10^{-6}$	cubic kilometer
<b>Flow</b>		
cubic foot per second ( $\text{ft}^3/\text{s}$ )	$2.832 \times 10^1$	liter per second
	$2.832 \times 10^1$	cubic decimeter per second
	$2.832 \times 10^{-2}$	cubic meter per second
gallon per minute (gal/min)	$6.309 \times 10^{-2}$	liter per second
	$6.309 \times 10^{-2}$	cubic decimeter per second
	$6.309 \times 10^{-5}$	cubic meter per second
million gallons per day (Mgal/d)	$4.381 \times 10^1$	cubic decimeter per second
	$4.381 \times 10^{-2}$	cubic meter per second
<b>Mass</b>		
ton (short)	$9.072 \times 10^{-1}$	megagram or metric ton

*Sea level:* In this report “sea level” refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment for the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.